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ORIGINAL ARTICLES.

CONDITIONS INDICATING CHANGE OF AIR AND BATHS IN THE SUMMER DIARRHEA OF CHILDREN.[1]

BY SIMON BARUCH, M.D.,

VISITING PHYSICIAN TO THE NEW YORK JUVENILE ASYLUM, MANHATTAN GENERAL HOSPITAL, AND CONSULTING PHYSICIAN TO THE MONTEFIORE HOME FOR CHRONIC INVALIDS, NEW YORK.

THE removal of the causes of disease being the chief aim of modern therapy, the unsanitary conditions that actively contribute to the development and maintenance of the summer diarrhea of children constitute an important element in the prophylaxis.

Change of Air—does not, as is sometimes erroneously supposed, improve the condition of the sick child by reason of any special difference in the proportions of oxygen or other chemic constituent. The chief factors that warrant us in advising change of air are (1) high temperature and marked humidity, or both; (2) the presence of impurities.

The pronounced influence of high atmospheric temperature and extreme humidity in the causation and maintenance of summer diarrhea in children has long been observed. Whenever, therefore, the usual treatment seems unavailing, especially when extreme prostration, with or without febrile exacerbations, becomes an element in a case of summer diarrhea, the question of change of air becomes important. Of what avail are stimulants, tonics and food, when the little sufferer is forced to toss under the constant, relentless systemic oppression produced by a stifling atmosphere, especially if aggravated by an excess of moisture, from which there is no escape, even by the most careful ventilation. Rich and poor are alike crushed under this terrible combination; for even in the open parks of the city it operates in full force. Removal by a rapid and comfortable journey to high altitudes or seaside, sufficiently remote to furnish a complete change from one or both of these prejudicial atmospheric conditions, becomes imperative in many cases. The change in the entire aspect of a case of summer diarrhea under such favoring conditions has been so often observed that I need not emphasize its importance.

The existence of atmospheric impurities demands removal of the little patient. This is so trite an observation that it would be absurd to dwell upon it, were it not so frequently disregarded. To the credit of the medical profession be it said that its disregard is chiefly chargeable to circumstances over which it has no control.

Among the well-to-do classes atmospheric impurities are rarely operative in summer. While imperfect ventilation frequently breeds such impurities in winter, even in the best-appointed dwellings, the advent of summer forces the occupants to open doors and windows for their comfort and convenience. Unless, therefore, the residence lies in a narrow or overcrowded street, or in one of those elegant but cramped apartments which are really but gilded tenements, change of air will rarely be required in this class of patients.

How different is it among the poor, who are always with us, and to aid and relieve whom is the highest and noblest privilege of civilized man. The noisome tenements in which the children of the poor, and many even of the better class of working-people, are huddled together, are excellent places for the culture and propagation of the elements that contribute to the development and maintenance of summer diarrhea in children. The chief aim in the treatment of the latter is now recognized to be clean food taken into a clean stomach, and its detritus removed as far as possible through a clean intestinal tract. The difficulty of meeting these indications in apartments abounding in dust and emanations from numerous human beings crowded together need but be referred to here. Hence, removal from the influence of this prominent etiologic factor becomes imperative, not for the purpose of securing, as was formerly held, air containing more oxygen, but with a view of having the patient surrounded by air containing less filth and its accompanying bacteria.

How to furnish these poor people with the means of obtaining so important a curative agent as change of air has long been a problem. Fortunately, charitable people have gone earnestly to work to solve it. It is a singular coincidence that just at the moment when these lines were penned, the mail brought me the program of an entertainment to be given for the benefit of one of these charitable enterprises, the St. John's Guild, which has built seaside hospitals, and furnishes thousands of sick children an opportunity to escape for a day or longer from

[1] Read before the Pediatric Section of the New York Academy of Medicine, May 12, 1892.

the depressing influence of impure air, besides giving them good food and medicines. To the poor, whose children require it, this change from a filth-laden atmosphere to the pure breezes of a harbor comes as a refreshing and vivifying blessing that cannot be over-estimated. Such recognition of the value of change of air in the treatment of the summer diarrhea of the children of the poor offers a more convincing argument than aught I can bring forward to establish it.

It behooves us, therefore, to further a charity the object of which is so laudable and practically beneficent.

There is one point in connection with change of air as a remedy that requires special emphasis. While, for reasons already mentioned, a change is imperative in almost all cases of summer diarrhea of the children residing in crowded tenement-houses, it is not so important in those cases whose environment is more favorable for home-treatment. Indeed, the change from a comfortable home to a country hotel, which is apt to be overcrowded, is not to be advised without careful reflection. It is not an infrequent occurrence to order a sick child away when the symptoms become alarming, without time for preparation or due inquiry. The consequences are discomfort from immaturity of plans, great expense, disturbance of the family, and consequent anxiety and unhappiness for the parents and friends.

Do the benefits to accrue to the little patients warrant these? The advantages and disadvantages of removal should be well weighed ere a change of air is decided upon; but, above all things, we must be satisfied that we have exhausted all other treatment. As I have said already, careful attention to sterilization of the food and to intestinal irrigation are of far greater importance than change of air. *We should be sure that these have been fairly tried before advising the change.* This statement is made as the result of practical observations at a noted summer resort, where I see many such cases every summer. To illustrate: In the summer of 1890 I was asked by Dr. Alfred Meyer, who was ill, to see for him a wizen-faced infant whose mother, being poor, had, at great sacrifice, brought it to a third-rate hotel at Long Branch for change of air as a last resort. The child had not improved, simply because its food was not proper and its intestinal canal had not been flushed. One dose of castor oil, followed by two intestinal irrigations and the use of sterilized milk, obtained by converting her medicine bottles and saucepan into a sterilizer, brought about a rapid recovery, enhanced by the constant exposure of the infant to the pure, ozone-laden air. Last summer I was called to the Long Branch home of the Babies' Shelter of New York to see two children whose diarrhea had not improved under the best dietetic and medicinal care in the city and after several weeks' residence in the country. A few intestinal irrigations sufficed to make a complete change in these cases, and contributed more to their recovery than change of air had done. The lesson from such cases is evident. While all cases of summer diarrhea of infants living in crowded houses demand change of air, other treatment is at least equally important. Among the better-situated, change of air need not be insisted upon until all approved methods of treatment have been fairly tried.

Conditions indicating Baths.—In the brief time at my disposal, the discussion of this subject must be cursory. Baths for cleanliness are always demanded in summer diarrhea, not only because the frequent soiling renders them more necessary, but because the maintenance of the functions of the skin seems to relieve internal congestion and fluxion.

In acute cholera infantum, baths for therapeutic purposes are of paramount importance, affording more positive relief and contributing more to the cure than all other measures. This form of summer diarrhea has by some not inaptly been regarded as a type of heat-stroke. Certain it is that if the temperature is taken in the rectum, it will almost always be found high; not infrequently there is hyperpyrexia, though the skin of the extremities and face be cool and clammy. Whenever the temperature exceeds 102° F., a cooling procedure is indicated. It is important that the proper method of bathing should be adopted, and that its *rationale* be well understood.

In these cases there is usually profound involvement of the nervous system, frequently manifested by a dull, apathetic countenance, sunken eyes, deadly pallor, cool extremities, not rarely terminating in outspoken eclamptic seizures. Medicines and stimulants are useless, because the stomach and rectum do not tolerate them. Such a child should be put at full length into a tub of water at 90°, after its face and head have been bathed with ice-water; gentle friction should be constantly made, while someone is removing with a pitcher the tepid water and replacing it by ice-water poured over the side of the tub farthest from the patient's body. The temperature of the bath is thus gradually lowered to 80°. If there be marked cerebral disturbance, water at 60° may be poured upon the head and shoulders. The child's body must be entirely submerged, the head only not being immersed. Its cries and protestations of chilliness must be met with gentleness, yet with firmness. For fifteen minutes the agitation of the water and friction of the body should be kept up, unless cyanosis of the face or decided shivering ensues. The latter will

be prevented by active friction, which stimulates the peripheral circulation.

After the bath the child is placed upon a linen sheet, previously laid smoothly upon a blanket. If the temperature before the bath — and it should always be taken at this time—has been 103.5° or higher, the child should be wrapped in the sheet so that every part of the body and extremities is well covered by it; the blanket is now snugly wrapped over and tucked under the body, which is thus allowed to dry. If, on the contrary, the temperature has been below 103.5°, the child should be gently mopped dry and its clothing be replaced at once. Such a bath is almost invariably followed by calm and refreshing slumber, from which the child awakens bright and playful.

Let it be understood that the object of this bath is not to reduce temperature, although this is an important incidental result. We have here a vasomotor paralysis, as evidenced by the pallor of the entire body, even when a high temperature is registered in the rectum. By immersing the entire body in tepid water we produce a mild shock, which is gradually increased by the removal of warm and the addition of cold water, and is enhanced by frictions of the body and constant agitation of the cooling water against the skin. These gentle shocks are succeeded by equally gentle reactions, so that the cutaneous vessels dilate, as evidenced by redness of the skin. If, in addition, the face and head are bathed with a little colder water, at 60°, the shock and reaction are increased, the respiration deepens, the heart beats with more vigor and less rapidity, the eye brightens, the color returns to the lips, the child becomes more animated.

The effect of a skilfully-administered bath in the condition of nerve-prostration incident, in many children, to acute summer diarrhea must be observed to be fully appreciated. In my experience it has been an inestimable boon, affording hope and comfort under the most trying and desperate conditions. My mind still retains vivid recollections of the days when I was a student and of the early years of my practice, when the condition of profound adynamia, usually associated with hyperpyrexia, was called spurious hydrocephalus, and the cases were allowed to die under blisters to the nucha and small doses of calomel. These cases do not now come under my observation; they are forestalled by the bath and by more rational treatment, foremost in which is judicious gastro-intestinal irrigation.

When there is objection or prejudice to tub-bathing, or when there is extreme jactitation, or when there are convulsions, the little patient may be placed in the wet pack, or the bath may be followed by the latter to maintain the calming effect. The wet pack is prepared by wringing out of water at a temperature of from 50° to 60° a linen sheet folded into a third of its usual size and smoothly laid (folded to suit the size of the child) upon a blanket. The child is snugly wrapped in the damp sheet (which may be made more wet if the temperature be high), so that the arms receive a fold to separate them from the body, and the legs a fold to separate them from each other. The blanket is now snugly tucked around the child, so as to completely envelop it, like a mummy, to prevent evaporation. This pack may be repeated two or three times, at intervals of ten minutes. The previously tossing child will usually drop into tranquil slumber, from which it should not be aroused. After the wet pack the body should always be rubbed with a linen cloth not quite wrung out of water at 70° F., and dried.

In the subacute form of summer diarrhea the chief condition indicating baths is the general depression of the system arising from the great drain upon the blood and nervous system. The pulse is usually rapid; the temperature ranges from 99° to 101°, with occasional exacerbations; the skin is inelastic; the face is sallow; in short, the symptoms are those of chronic adynamia, due to imperfect nutrition. To stimulate the appetite, improve the general nervous condition—in a word, to refresh the entire organism—should be our therapeutic endeavor. The most approved tonics and stimulants often fail, as Dr. Chapin has so graphically and poetically told us. In these cases general ablutions, morning and evening, are preferable to baths. The child is placed upon a soft woolen blanket; the abdomen, chest, and back are rapidly bathed, not sponged, as follows: From the hollow of the naked hand water at a temperature of 75° F. is poured upon the skin, which is then gently rubbed with the same hand. This is repeated until the entire body has been thus treated as far as the knees and elbows. The body is now rapidly dried by placing it upon a linen sheet, using friction with a rough towel if the temperature is below 99.5°, and only gentle mopping if it is above 100° F. If the temperature reaches 102°, a general bath is indicated, beginning with water at a temperature of 95°, which is gradually reduced by agitation and friction to 85°. Gentle drying follows.

The refreshing effect of these procedures has been so frequently observed that I do not hesitate to commend them to your adoption. There are many modifications of baths indicated by the various symptoms in summer diarrhea of infants. The time-limit precludes their description. Suffice it to say that no case should be regarded as intractable or too desperate until some form of hydriatric procedure (the adaptation of which to each case often requires more judgment than that of medicinal agents) has been tried.

SIMPLE FRACTURE OF THE SHAFT OF THE FEMUR, AND ITS TREATMENT WITH THE LONG SPLINT.[1]

BY N. F. GRAHAM, M.D.,
PROFESSOR OF SURGERY, MEDICAL DEPARTMENT, HOWARD UNIVERSITY, WASHINGTON, D. C.

A VERY special interest attaches to fractures of the femur, for the reasons—First, of the desirability that firm union, with the least possible degree of deformity, either angular, rotatory, or from shortening, shall result; and, secondly, that this result shall be obtained with the minimum degree of discomfort to the patient during the treatment.

The use of the lower extremities is primarily to sustain the weight of the body and for locomotion. In addition to this, the femur and the bones of the leg are often called upon to sustain great additional weights, proportioned to the strength of the individual and the requirements of his occupation, often amounting to hundreds of pounds, so that, when fractures take place, the end and aim of the treatment should be to restore the limb unimpaired in shape, strength, and action.

Experience and observation have shown that a little over 50 per cent. of fractures of the femur occur in the middle third, about 30 per cent. in the lower third, and a little less than 20 per cent. in the upper third. I desire to confine myself in this article to the consideration only of fractures occurring in the middle third, in the upper half of the lower third, and in the lower half of the upper third; or, in other words, those occurring at a distance from the hip-joint and knee-joint. The majority of fractures, occurring anywhere in the length of the bone, are due to indirect violence. Confining ourselves to the parts of the shaft that I have selected, we find that direct violence is the most important factor.

When there is entire division of the shaft of a long bone, the two fragments are, as a rule, displaced as regards their relation with each other in one or more ways. First: Transversely, varying from a small part of the diameter of the bone to its entire width or even more. Second: Longitudinally, as when the fragments override one another, causing shortening. Third: Angularly, as when the ends of the fragments remain in contact, but by the contraction of the muscles the limb is shortened, causing the long axis of the limb to form an angle. With any of these may be combined rotation of one of the fragments on its long axis.

I am not aware that such a thing as a purely lateral displacement ever occurs; but, in the event of its occurrence, we should not expect shortening, while with longitudinal or angular displacement there is always shortening.

Extension, counter-extension, and coaptation will remedy the transverse, longitudinal, and angular defects, whilst the rotatory displacement is corrected by rotating the lower fragment until its position corresponds with the upper one. By these means, combined with retentive dressings, immobility of the fragments is permanently secured until bony union is complete. This varies as to time according to the age and condition of the subject. Lameness and soreness at the seat of the break and in the knee persist for a number of weeks, and sometimes for months after all artificial support is discarded.

The very general rule is that, after most careful adjustment of the broken bone, and with most skilful management afterward, there will be some degree of shortening, varying from one-fourth of an inch to an inch, the mean being about one-half of an inch.

Up to a certain limit, measurements cannot be relied on, as there are reasons that make them inexact. To say that a leg is one-eighth, or even one-quarter, of an inch shortened by a fracture places the correctness of the measurement under suspicion. Besides, the points between which the measurements are made vary as to position and conformation. The malleolus on one side may be longer or shorter than its fellow, or the anterior superior spinous process of the ilium may be situated lower or higher than its opposite.

Permanent lameness may result from the smallest degree of shortening, owing to the inability of the individual to drop the pelvis toward the shortened side so as to compensate for the difference in length of the limbs. On the other hand, others adapt themselves in a short time to the changed conditions, so that no lameness exists even when the actual shortening amounts to an inch. I do not believe that a limp can be prevented when one limb is more than one inch shorter than the other, whether the shortening be congenital, or due to a break.

After fracture of the femur, the chances for good results, so far as length is concerned, are governed in some degree by the limb that is fractured. A larger percentage of left femurs are known to be longer than the right, in cases in which a difference exists. The most reliable statistics show that in only 10 per cent. of all cases are the femurs of equal length. In the 90 per cent. in which inequalities exist, the right femur is longer in 35.7 per cent. and the left in 54.3 per cent., so that in a larger number of fractures of the left femur the shortening following a fracture is not apparent on measurement after repair has taken place. This accounts for the clinical fact, long observed, that fewer left femurs were

[1] Read before the Medical Society of the District of Columbia, at its meeting on March 23, 1892.

shorter than the right after recovery from fracture, the explanation of which is found in the more recently acquired knowledge of the natural difference in length and the relation it bears to the two sides.

It may be that great shortening is found after a fracture, a small part only of which is due to the treatment. The natural difference in the length of the thigh-bones may be as much as an inch. Let us suppose that in such a case a fracture occurs in the shorter femur and unites with half an inch of shortening, due to the fracture. This, added to the inch of natural deformity, would give a total shortening of one and one-half inches, enough to cause a decided limp, yet the main part of it would be due to the natural defect.

Conversely, a femur an inch longer than its fellow might be fractured and shortening of an inch or more result, with the effect of restoring uniformity of length without lameness, provided that the proper relation of the axes of the two fragments were maintained; that is to say, if there were no angular or rotatory deformity. When there has been an oblique fracture of the shaft of the femur, and when, after repair, no shortening can be made out, it may be accepted that the bone that was broken was longer than its mate.

To get union after fracture of the femur, without leaving a trace of the injury in shape or usefulness, has engaged the attention and taxed the ingenuity of eminent surgeons, and many complicated appliances have been used, none of which can be said to be entirely satisfactory. Good results have been and can be obtained by any form of apparatus when the management is in the hands of expert surgeons. It must be remembered, however, that a large proportion of the fractures are not treated by surgeons of experience, but by men who see and treat but a limited number in the whole of a long professional career. Only frequent opportunities and the intelligent use of such apparatus can confer expertness.

Many facts in regard to the results after fractures of the femur have accumulated during the past twenty years in my experience, observed almost daily in examining men who suffered such fractures during the late Civil War, and since that time in the regular army and in civil life. These facts have convinced me of the necessity of more reliable and simpler methods than those generally adopted, or of better instruction. My notes show but a small percentage of what could be regarded as good results. About 70 per cent. of the number were treated with the pulley and weight, with elevation of the foot of the bed, and varied retentive appliances: sand-bags, short side and coaptation splints, etc.; the remaining 30 per cent. were treated with the long straight splint, with the perineal band and foot extension. No very gross deformity was met with in any of the cases treated by the latter method, while a number of actual cripples presented themselves, who had been treated by the former plan.

The physician who sees and treats but an occasional fracture should use an uncomplicated and, above all, a safe apparatus. Of these there is none so available and reliable as the long, straight outside splint, reaching from the axilla to a point six or eight inches beyond the bottom of the foot, with its opposite reaching from the perineum to a length beyond the foot corresponding to the long one. This is nothing more than the old Desault splint as modified and lengthened by Physick. The principle of the application of extension and counter-extension is the same as that used by Liston, but the splint applied to the inside of the thigh adds greatly to the certainty with which the fragments can be kept in place.

Only 29.12 per cent. of the population of this country live in cities and towns of four thousand inhabitants and upward, whilst 70.88 per cent. live in the rural districts. The larger proportion of this latter class are engaged in pursuits that expose them to great risks—such as farming, mining, lumbering, railroad construction, quarrying, etc.—and it is but reasonable to expect a large number of fractures among them.

The country practitioner, when called upon to treat a case of fracture, has many difficulties to contend with, and it is not reasonable to expect that he can get so many good results, with the use of similar complicated appliances, as his city brother. The latter has his patient near at hand, and very often in the care of an intelligent trained nurse, whilst the country surgeon has to depend for nursing on the family or friends and has to travel a long distance to visit his case. Frequently he is unable to see the patient often enough to correct faults that may arise at any time when a complicated apparatus is used. The simplicity of the long splints, and the certainty with which they can be kept in place, commend them particularly to the country surgeon; even in cities better results, with less trouble both to the surgeon and the family, may be obtained with them than with any other form of apparatus. Besides, in my experience, the comfort of the patient is very greatly promoted by this splint; for, when properly applied, the movements of the patient up and down in bed do not disturb the fragments. Absolute restraint for any length of time is extremely irksome, and when this is combined with the distressing tension to which a weight hung to his leg subjects the patient, together with the weariness and discomfort resulting from the constant strain on the muscles of the leg and thigh, the result must be well-nigh intolerable.

It requires great skill and much experience to

decide the exact weight to be used. Too great a strain may separate the fragments and prevent union; too small an amount will allow the muscles to contract, causing shortening. All these considerations are eliminated, or, at least, much modified by the use of the long splint. The extension and counter-extension are so applied, at the time of adjusting the fracture, as to bring the muscles to their natural length, as they should be when the limb is extended from hip to ankle, and in that position they are held. The dressing cannot be painful, so far as the muscles are concerned, for they are neither in a state of contraction nor extended beyond the natural, and, above all, they are relieved of the constant drag that becomes so burdensome to the patient when a weight is used.

I do not deny that the pulley and weight may be, on rare occasions, necessary. When the patient is large, strong, and muscular, and when it is difficult to secure the proper length of the limb by immediate extension, the plan of applying a heavy weight, proportionate to the resistance, for a sufficient time to tire the muscles, may be necessary, after which the long splint, with the perineal band and fixation of the foot to the lower extremity may be adopted. In adults, at about the fifth week, the splints may with safety be replaced by a well-applied plaster-of-Paris dressing, reaching from below the knee to the groin. This change of splints is a great relief to the patient, giving more freedom at once, which, however, should be indulged in with care for the following two weeks, after which time he may get out of bed and move about on crutches for a few days, when the cast may be removed. The use of crutches should be continued for a few days, say a week, longer, at the end of which time the femur should be strong enough to support the weight of the body, but no heavy burdens should be carried or heavy lifting be done for a number of weeks more.

It has been urged that it is difficult to apply the long straight splints without the risk of displacing the fragments after adjustment—an objection that is not tenable, provided that the arrangements for their application are properly made and carried into effect.

The first requisite for the treatment of fracture of the femur, no difference what appliances may be used, is a firm, smooth mattress, laid on an unyielding foundation, on which the patient should be placed before the fracture is set. Now the splints should be prepared of suitable length, width, and strength; the outer long enough to reach from just below the axilla to six or eight inches beyond the sole of the foot, as wide as the thickest part of the normal thigh, notched at the lower extremity, and with two holes bored and bevelled at the upper extremity. The inner splint should be of the same width and strength as the outer, and should extend from the perineum to the same distance beyond the foot as its fellow, without holes above or notches below. Both splints must be carefully padded with long, smooth strips of fine absorbent cotton, or a good quality of cotton batting, wide enough to extend a trifle beyond the edges of the splints and shaped to fit the natural inequalities in surface of the limb, the prominences being especially protected. The aim should be to secure a uniform pressure on every part of the length of the limb. The padding can be held in place by strips of muslin long enough to encircle the splint and padding, placed from four to six inches apart, and tied on the outside of the splint.

The perineal band should now be fitted and left loosely in place. A large, soft napkin or handkerchief, carefully folded and—if at hand—covered with oiled silk, answers the purpose well. Next, a strip of strong adhesive plaster, two inches wide, is applied, extending from above the knee, down the leg on one side, around the bottom of the foot, leaving a short loop at the turn, and up the other side of the leg to a point as high as that of beginning. The malleoli should be protected by layers of cotton between them and the plaster. A few short transverse strips of plaster may be applied to give the long strip firmness enough to bear the traction to which it will be subjected.

Then a number of canvas straps with buckles, or, what will answer the purpose just as well, strips of strong muslin a couple of inches wide and long enough to encircle the limb and splints, are laid under the leg and thigh from the ankle to the perineum at intervals of four inches. To complete the arrangement a broad band should be placed under the body, wide enough to extend from the axilla to the hips and long enough to go around the body and lap three or four inches.

Now, with properly applied extension and counter-extension, the thigh is brought to its normal length, and by manipulation the fragments are made to assume their proper relation to each other, an anesthetic being used, if necessary.

The outer splint should now be placed alongside the limb and the free extremities of the perineal band carried through the holes at the top of the splint and fastened. Next, by means of a cord or a strong strip of muslin passed through the loop of adhesive plaster, the foot is securely fastened to the bottom of the splint, and it can be so securely fastened and held between the extending and counter-extending forces as to prevent shortening. The inner splint is now put in place and the straps buckled, or the strips, if they be used, securely tied. If this arrangement be effectively carried out, there need not be the least movement of the limb. The binder about

the body may now be fastened by two rows of safety-pins, one at the exposed and one at the concealed extremity.

There is a safety in this method that no other plan of treatment possesses, and it has the advantage of being easily carried out. If I may judge from the testimony of the patients treated by me by various methods, those treated with the long splint suffered less than those treated by any other appliance. It is found, by observation and a perusal of the statistics of all the larger hospitals in this country and Europe, that about 12 per cent. (the extremes ranging from 7 per cent. to 18 per cent., depending on localities) of all fractures are in the femur. Considering the importance of the bone, it is a matter of no small moment that the management of its fractures should be conducted with effectiveness and simplicity. At the same time the comfort of the patient should not be disregarded.

Of 668 cases of fracture, taken from the records of the Freedmen's Hospital in this city, 84 were of the shaft of the femur, all of which were treated with the long straight splints, with perineal band and foot extension. The results have been all that could be desired. The average shortening, in cases in which shortening was found, did not exceed one-half inch, and there were no instances of angular or rotatory deformity. The average time the splints were left on, during the earlier years of the existence of the hospital, was about six weeks. During the past six years they have been replaced by the plaster-of-Paris dressing at the end of four or five weeks, and the treatment by this method is complete in from six to eight weeks, after which time the patient is allowed to move about freely on crutches for a few days longer.

My own personal experience in the treatment of this fracture covers all the methods recommended, but I have finally settled on the long straight splints as furnishing the most available as well as the most certain plan for securing satisfactory results. With care, the risk of the extending and counter-extending forces becoming relaxed, so as to allow the muscles to contract and cause shortening, is small, and one that has given me but little concern. I have notes of thirty-seven cases treated by me by this method within the last six years. In not one was the shortening enough to cause a limp, and the contour of the limb was normal in every instance.

In conclusion, let me sum up by saying that this plan of retentive dressings for fracture of the femur is easily applied; the splints are easily made, and the patient is more easily and more safely handled than by any other appliance. There is no risk of displacing the fragments if the patient moves up and down, and he may even move sideways to a limited extent—a small liberty that adds greatly to the comfort of the sufferer.

In the case of young children they can be lifted from the bed without risk—an advantage not associated with any other retentive dressing, except the plaster-of-Paris.

It is my opinion, however, that this latter dressing should never be applied during the early days of a fracture, not only of the femur, but of any of the long bones.

A FEW SUGGESTIONS ON THE DIAGNOSIS AND TREATMENT OF LUPUS.[1]

BY WM. THOMAS CORLETT, M.D., L.R.C P. LOND.,
PROFESSOR OF DERMATOLOGY IN THE WESTERN RESERVE UNIVERSITY; CONSULTING PHYSICIAN FOR DISEASES OF THE SKIN TO THE CHARITY HOSPITAL, THE CITY HOSPITAL, ST. ALEXIS HOSPITAL, ETC., CLEVELAND, OHIO.

IT is not the object of this paper to discuss *in extenso* the various aspects of lupus, nor to detail the several modes of treatment in vogue, but to present in a concise way the main points as to diagnosis and treatment that have presented themselves to the writer from time to time.

It is accepted as a fact that lupus is a local tuberculosis, in main identical in histologic structure with tuberculosis of the internal or more vital organs, and like it due to the bacillus tuberculosis.

The simplest form is called lupus erythematosus. Histologically it is a small-celled new-growth of the skin, best marked about the bloodvessels, clinically appearing in the form of one or more circumscribed, variously sized, reddish patches, covered with grayish-yellow, adherent scales.

Its favorite seat is on the face; it is a disease of middle life, is never seen in childhood or in old age, and is far more common in women than in men. Jonathan Hutchinson states that it is frequently found in persons having a languid circulation, as evidenced by cold hands and feet, and with a purple, mottled skin. Thus, in its incipiency, it seems allied to erythema, which at first it closely resembles. Lupus erythematosus, however, is circumscribed, with well-defined margins, and although at first it may show a tendency to evanescence, yet it always recurs in the positions previously invaded; while erythema is not sharply defined, it extends over a larger area, is markedly evanescent, and tends to invade new surfaces rather than to return to positions previously occupied. As lupus erythematosus develops, its appearance is quite unlike that of erythema, and little difficulty will be experienced in a differential diagnosis.

From rosacea, lupus erythematosus may be distinguished by the engorged condition of the blood-

[1] Abstract of a paper read before the Surgical Section of the American Medical Association, held at Detroit, from June 7 to 10, 1892.

vessels, which in the former constitutes one of the most prominent features. Then, acute inflammation of the sebaceous follicles accompanies rosacea; its distribution is on the tip of the nose, chin, and not infrequently over the entire face, while lupus erythematosus usually appears over the malar bones and extends thence across the bridge of the nose—butterfly-shaped.

Lupus erythematosus may, however, occur on other parts of the face, more rarely on the trunk and extremities, when a diagnosis is oftentimes extremely difficult. In these positions it resembles tinea circinata, but in the latter there is usually a history of contagion; if this be wanting, the only trustworthy means of differentiation at our command is the microscope. After macerating the scales of tinea in liquor potassæ for a few minutes, a sixth-of-an-inch objective will enable one to detect the tricophyton, which is absent in scrapings from a lupus surface.

Eczema in middle or advanced life may resemble lupus erythematosus. This especially applies to the form of eczema found in gouty or rheumatic subjects,[1] which occurs most frequently on the back of the hands, and when one hand alone is involved the resemblance may be quite misleading. In eczema there is invariably a history of moisture in the early stage of the disease—the so-called catarrhal inflammation—and it is usual even late in its course to find groups of vesicles in the neighborhood, notably on the fingers and toes; while the eruption of lupus erythematosus is essentially dry.

Then again, eczema is ill-defined at the margins and gradually merges into the healthy skin, which contrasts with the exaggerated peripheral disturbance that gives to lupus a sharp line of demarcation.

The sensation of itching is of little diagnostic value.

Although the surface of a patch of lupus may resemble that of other affections, yet the bed underlying the scaly covering is peculiar to this disease. On picking up the scales, which are firmly adherent, it will be seen that there are processes extending downward into the sebaceous follicles, which after removal leave the patulous openings of the follicles plainly visible. At other places, blood will be seen oozing from the ragged surface. In eczema, upon removing the scales, the surface will be found moist, as if bathed in copious perspiration.

Psoriasis in a mild form, especially when it occurs in gouty or rheumatic persons, as Liveing has pointed out,[2] at times closely resembles lupus erythematosus; this is notably so when the disease appears on the scalp; but, first, the history of invasion is widely dissimilar in the two affections, psoriasis making its appearance about the age of puberty, while lupus erythematosus appears at a period ranging between twenty-five and forty-five years of age.

Again, the scales of psoriasis are silvery white, imbricated, and less firmly adherent; the base of the patch is smooth or undulating, at times showing the summits of the enlarged papillæ; while the scales of lupus and its base present the features already described.

The extension of the lupoid process downward into the sebaceous sac and hair-follicle interferes with the nutrition of the hair, so that when the disease occurs on the scalp or bearded part of the face in men, the roots of the hairs are destroyed, leaving bald plaques; while in psoriasis the root of the hair is but little, if at all, affected.

Syphilis in its protean manifestations may resemble lupus erythematosus. In the absence of a syphilitic history, which requires the greatest care lest it prove misleading, the lesions themselves may be differentiated; and in this it is well to bear in mind that the lesions of syphilis are more general in their distribution; they are, as a rule, more evanescent and of a darker color. Finally, in case of doubt, a fortnight's treatment with anti-syphilitic remedies may be resorted to. Lupus erythematosus leaves scars that may be scarcely perceptible; in severe cases they resemble parchment.

Lupus vulgaris is a more severe form of the disease. It also is a cellular new-growth, characterized by variously sized and shaped, reddish or brownish patches, which consist of papules, tubercles, or flat infiltrations, usually terminating in ulceration and the formation of disfiguring cicatrices.

This form is more pronounced and consequently less liable to be confounded with other affections. There is one disease, however, in which a positive diagnosis is often extremely difficult, viz., syphilis. This similarity only applies to the late manifestations of syphilis, when the variously-appearing lesions are primarily made up of granulation-tissue. Histologically, lupus likewise comes under the head of granulation-tissue, so that the external aspects of the two affections in the different stages of development and degeneration are closely alike. Generally the histories of the individual lesions—not of the disease, for in syphilis this is frequently misleading—will enable one to determine to which of these affections the case belongs. In lupus vulgaris the lesion will be found first making its appearance early in life, at about the age of puberty, and the eruption is extremely chronic, often remaining for years with but slight variation. The late manifestations of acquired syphilis occur later in life, are more widely distributed, and, although slow in

[1] "Diseases of the Skin in the Subjects of Gout," Journ. Cutaneous and Venereal Diseases, September, 1886.

[2] A Handbook on the Diagnosis of Skin Diseases, London, 1878.

course, their duration is a matter of months rather than of years, as is the case with lupus.

There are also distinctive features in the lesions, that the experienced eye may readily detect, but that can be but imperfectly described. The following may be mentioned as the most noteworthy: The base of the lupus patch shows an exuberant growth of granulations, its margins are undermined, and islets of lupus-tubercles are seen in the adjacent skin. In syphilis, the margins are clearly cut, as if punched out, with a smooth, ashen-gray base. Lupus attacks the soft parts, which it destroys; in severe cases cartilage offers no certain barrier to its ravages; but it never attacks bone; not so with syphilis, which late in its course has even a predilection for the osseous system. Again, when syphilis occurs on the face, it is most commonly seen on the upper part of the forehead, the fissures between the alæ of the nose and the upper lip and the angles of the mouth, in which latter positions it is pathognomonic; whereas lupus vulgaris selects in preference the nose, cheeks, and ears. Too much stress must not be laid on the color, for it may or may not be distinctive.

Even greater difficulty will be experienced when lupus invades the trunk or extremities. Here the main point of diagnostic value is the limited area of the eruption, and if accompanied by lupus on other parts, as on the face, its extreme persistency will enable one to exclude the multiple and more short-lived eruptions of syphilis; nor will the microscope aid materially in the diagnosis, as the tubercle-bacillus is difficult to detect and is not found in all specimens examined. As in lupus erythematosus, when doubt still exists a fortnight's treatment with some form of iodine will usually settle the diagnosis so far as relates to syphilis.

It is very seldom that epithelioma or rodent ulcer is mistaken for lupus, yet a limited patch of the latter may bear some similarity to the former; and as epithelioma leads to a fatal termination, and is only successfully treated before the lymphatic glands are implicated, its early recognition is all-important.

First, as to age; lupus appears before thirty-five, while epithelioma comes later in life. The nodules of lupus are multiple, while epithelioma presents but a single lesion. At times, the fungoid growth of the lupus-tubercle contrasts strongly with the ulcer-like lesion of epithelioma. In lupus, the lesion is soft, while in carcinoma the base and margins are hard, and the surface is glazed with a watery secretion.

Occasionally, epithelioma develops on a surface already occupied by lupus. The one case that has come under my observation at St. Alexis Hospital rapidly passed on to a fatal termination.

Lupus verrucosus is a more rare form, and in my experience has been encountered in very strumous subjects early in life. The warty outgrowth is quite characteristic, and once seen cannot well be mistaken for anything else.

The treatment of lupus must also be considered *seriatim*. First, in regard to lupus erythematosus: As in granulomata, scrofulomata, etc., of different writers, the general condition of the patient should be seen to, and at its onset the disease may yield to this alone.

The diet should contain a large quantity of the hydrocarbons, and the form that is most generally acceptable is butter. Following in the same line, cod-liver oil stands in high esteem. Then in the rôle of medicaments come iodine and creasote. Some years ago, Dr. Liveing, of London, carried out what he called the iodine-treatment for lupus. Iodine in various combinations was given internally to toleration, and an ointment of mercuric iodide was applied to the lupus surface. There could be no doubt that cases of lupus at the Middlesex Hospital were greatly benefited, but according to my subsequent experience the disease is not eradicated even after a prolonged course, and it readily resumes its wonted severity on discontinuing the treatment.

More recently Bulkley has extolled the internal use of phosphorus, but my own limited experience with it has not encouraged its further use. At the Hurlbut and Huntington Dispensaries of Western Reserve University, creasote is extensively used by my confrères for tuberculosis,[1] and its employment in the treatment of lupus during the past two years leads me to believe that the remedy is of decided benefit in this disease. The dose varies somewhat according to individual peculiarities, but it is well to begin with from one to two minims in capsule every two hours. This may be increased to three minims every two or three hours.

In severe or neglected cases, however, it will be necessary in addition to attack the disease *in situ*. The following is a simple and efficient procedure: The surface is prepared by washing it vigorously with hot water and the German green soap; the latter is then thoroughly rubbed into the skin and allowed to remain for an hour. The surface is again cleansed, when the scales and follicular processes into the sebaceous glands will be cleared away, leaving a raw surface. Then apply—

℞.—Sulph. precip. . . . . ℥iij.
Glycerini } āā . . . . ℥j.—M.
Alcoholis }

S.—Apply three times a day.

Two or three times a week for a fortnight the green soap should be repeated.

[1] "How to Give Creasote," by Howard S. Straight, M.D., Cleveland Med. Gazette, December, 1891.

In more severe cases I have added to the preceding formula ammonium sulpho-ichthyolate in the strength of 5 per cent., and have found it a valuable adjuvant. Mercury, in the form of the diachylon plaster, the white precipitate ointment, or the oleate (20 per cent.), likewise has its advocates, and is without doubt a valuable application.

In many cases, however, more radical measures are required, and I have found linear scarification, as practised so extensively at the Hôpital St.-Louis by Vidal, the most efficient means at our command. The cuts are made entirely through the derma and closely together, then crosswise. After the bleeding has ceased, emplastrum vigo cum mercurio is applied. This dressing should be removed daily, and the scarification repeated twice a week.

In the treatment of lupus vulgaris, what has been said in regard to the hygienic management and internal medication of lupus erythematosus applies with equal force; but more especially in this disease are external procedures required. Bearing in mind that we have to deal with a local tuberculosis that extends indefinitely, constantly invading new tissue, each additional tubercle acting as a new focus of infection, the object of treatment is obviously to cut short this process of extension and to remove the noxious material already formed. This is done as follows: The patient is chloroformed, and with a Volkmann's spoon the tubercles are cleanly scraped out; then the parts are washed with a mercuric chloride solution (1 : 1000), and pyrogallic acid is packed into the excavations thus formed. This dressing is repeated daily for several days; then some simple dressing, such as the white precipitate ointment or the emplastrum vigo cum mercurio, is applied until resolution takes place. Occasionally the pain, subsequent inflammation, and constitutional disturbance are too severe, when some of the milder escharotics should be employed. Of these, creasote and carbolic acid are the best, causing but slight pain and no constitutional ill-effects. Seldom will one operation suffice, for in a few weeks or months brownish spots will be seen; these soon develop into tubercles, when the procedure must be repeated until the cure is complete.

THE DIFFERENT FORMS OF CARDIAC PAIN.[1]

BY SAMUEL C. CHEW, M.D.,

PROFESSOR OF PRINCIPLES AND PRACTICE OF MEDICINE IN THE UNIVERSITY OF MARYLAND, BALTIMORE.

CARDIAC pain is a symptom belonging to several affections that differ from each other in their nature and pathology. These maladies have all the common property of pain, varying in degree and seated apparently or really in the heart. There is, however, no satisfactory term in English usage for designating this pain. On the ground of analogy, it would seem proper to call it cardialgia, after the examples of gastralgia, cephalalgia, etc.; but this word is already appropriated, illogically though it may be, to an affection with which the heart is not concerned at all. Thus, in the *National Medical Dictionary* of Dr. Billings, the first definitions of cardialgia are gastrodynia and heartburn, the last being pain in the heart. In the *Century Dictionary* and in that of Dr. Foster no other meanings for cardialgia are given than heartburn and gastralgia. Dr. Flint says that "cardialgia signifies pain at the cardiac orifice of the stomach, of a burning character";[1] and Dr. Wm. H. Welch, in his very valuable monograph on *Ulcer of the Stomach*, says: "With most English and American writers cardialgia signifies heartburn, while Continental writers understand by it the severe paroxysms of epigastric pain which we more frequently call gastralgia."[2] This usage, though fixed, is certainly contrary to etymology and to the analogy of similar words. *Heart-pain* would suggest its meaning very plainly, but it is not in accordance with English usage; for we do not say head-pain or back-pain; and if headache, backache, and earache suggest *heart-ache*, we are debarred from that word by the fact that since it was included with "the thousand natural shocks that flesh is heir to" it has always been used to denote emotional rather than physical distress. We are therefore driven to the use of the terms "cardiac pain" or "pain in the heart."

This kind of pain is found as a prominent symptom principally in three different forms of disease of the heart; and I desire to refer briefly to these from a clinical rather than from a pathologic point of view.

The first of these, and the one in which the pain exists in most intense degree, is angina pectoris, true angina with increased arterial tension, occurring in paroxysms, and most frequently associated with aortic or coronary disease or with fatty degeneration of the heart. As the name of this affection implies, the pain is of the very essence of the disease itself. In severe cases it is nothing less than a mortal agony—an agony from the very intensity of the pain, and a mortal agony because, as testified by many sufferers, the pain is attended with a sense of impending dissolution. Nothing can better describe a paroxysm of angina than words used by a non-medical writer, and without reference to this disease, in which he speaks of "a sense of ruin which is worse than pain." As recorded by Dr.

[1] Read at the meeting of the Association of American Physicians, held in Washington, D. C., May 24, 25, and 26, 1892.

[1] Practice, p. 443.

[2] Pepper's System of Med., vol. ii, p. 489.

Latham from his own observations, it is "a suffering as sharp as anything that can be conceived in the nature of pain, including something which is beyond the nature of pain—a sense of dying." Keeping in mind this element of the paroxysms, I think Professor Flint's criticism, that "Heberden's term signifying *strangulation* has but little pertinency in this application of it," is, with all deference to his high authority, hardly justifiable; for Heberden speaks of "the sense of strangling and anxiety with which the disorder is attended"—*angor pectoris intentans vitæ extinctionem*; and he seems to use the word angina with reference to these rather than to the pain alone; to the combination of anxiety and anguish found in the disease; words indeed that come from the same root as angina and bear witness to the accuracy of the term as Heberden first employed it.

The structural changes connected with true angina are in a very large proportion of cases those that produce cardiac ischemia, especially insufficiency or atheromatous rigidity of the aorta, obstruction of the coronaries, or fatty degeneration of the heart. Any one of these changes may lessen the blood-supply to the heart-muscle; but only the first two, aortic insufficiency and obstruction, are diagnosticable with certainty by auscultation; we may suspect coronary obstruction or fatty degeneration, but we cannot during life prove their existence. Hence the prognosis of a case of true angina pectoris may be equally as grave when auscultatory examination yields a negative result, as when it discloses organic disease; for the cardiac ischemia on which the disease may depend may be brought about by undetectable coronary obstruction or fatty change. On the other hand, post-mortem examinations not infrequently show great sclerosis of the coronaries, and also fatty degeneration, in cases in which the symptoms of angina pectoris had not been present during life; so that it is difficult to determine what is the immediate cause of the angina, *i.e.*, what is the exact causative relation of the lesions to the symptoms.

A very common factor in the production of a paroxysm, or at least a very common attendant upon the paroxysms in the earlier attacks, is a great and sudden increase of arterial tension. Whatever be the underlying organic cause, the immediate action seems to be purely neurotic, just as it is in Nothnagel's vasomotor angina, coming on after exposure to cold, which produces apparently a spasm of the peripheral arterioles and a sudden feeling of tension or severe pain about the heart; or there may be some unknown reflex influence by which the arterial constriction and increased tension are brought about and the paroxysm excited.

It was this sudden increase of arterial tension that led Lauder Brunton, by a happy inference, to try the effect of amyl nitrite in angina. The action of this remedy in causing flushing was first observed by Guthrie, and its power of lessening tension was first shown by Gamgee, but the application of its power to the particular form of increased tension found in angina pectoris was first made by Brunton, with the well-known results of giving deliverance and safety, at least for a time, to many that have seemed ready to perish. In view of the many cases of angina in which great and prompt relief has been given by this agent, I cannot but feel surprised at the opinion expressed by several recent writers that it is doubtful if there are any remedial agents that have the power to arrest or very greatly relieve a paroxysm of the disease. No therapeutic results seem to me more obvious and satisfactory than those that are often witnessed from the use of this remedy in angina; and I fully agree with Professor F. C. Shattuck, that the value of the nitrites in angina is greater than Strümpell, the author upon whom he comments, would seem to admit.

A second form of cardiac pain closely allied in character to the one already considered, and yet distinct from it in its pathologic relations and generally less intense in type, is encountered as a complication of some cases of chronic nephritis, chiefly the contracted kidney or interstitial nephritis. In this class of cases the changes in the kidneys and sometimes in the heart are parts of a general arterio-sclerosis, and the pain in the heart is probably the expression of resistance to the blood-flow through the arterioles.

If it be asked why, with a constantly present mechanical cause, the attacks should be paroxysmal, with intervals between them, it may be said that this is a law of various neuroses, such as neuralgias dependent on pressure, or epilepsies due to exostosis or depression of bone, or spasmodic asthma due to nasal polypi—all conditions in which the causes are constant and the neurotic seizures paroxysmal. In this form of cardiac pain, the attacks may be frequent, but they are in general less severe (such at least has been my experience) than those of true angina connected with heart-lesions. I have described several such cases in a paper read before this Association at its meeting in 1888. In all of them the symptoms of chronic interstial nephritis existed, and in one of them, in which the painful attacks were most severe and most like those of true angina, post-mortem examination disclosed not only chronic contracted kidneys, but occlusion of the coronaries. It is in cases of this kind that potassium iodide in large doses, as advised by Huchard, may sometimes prove beneficial by lessening the arterio-sclerosis. In the painful attacks, a certain degree of relief may be

obtained from amyl nitrite, which, though it cannot reach the organic cause of obstruction, may lessen an incidental increase of tension.

After all, these two forms of cardiac pain may be essentially one in their pathology—both being dependent upon sclerotic changes. Regarded clinically, however, one group is composed of cases in which there are detectable or suspected organic heart-changes, with no kidney complications; while the other group consists of cases in which the kidney-symptoms are always prominent, while the heart may or may not be involved.

A third form of cardiac pain is found in dilatation of the heart, and is perhaps due to tension and stretching of the nerves in the heart-substance. Traube held that the pain of true angina is due to this cause. Whether it be so or not, the subjects of cardiac dilatation frequently experience pain about the heart, greater in degree in general in proportion to the rapidity with which the dilatation is induced.

Pain may thus arise from any form of valvular disease of the heart that leads to dilatation; but of the various valvular lesions it is perhaps found most commonly in aortic insufficiency, which is likely to occasion rapid dilatation of the left ventricle, from the pressure of the backward current of blood from the aorta, at the same time that the left auricle is sending its supply into the ventricle. It is to be remembered, however, that aortic insufficiency may give rise to some cardiac ischemia by the imperfect filling of the coronaries; and thus there may be two causes of the pain, the ischemia and the intra-ventricular pressure. Which has the larger share in causing the pain, it may be impossible to say.

If dilatation be extreme and acutely developed, free venesection may be the best means not only for relieving pain, but also for saving life.

In all forms of cardiac pain, arsenic is a remedy of much value, from its action as an anti-neuralgic, and from its power of promoting the nutrition of the heart. It has no effect in the way of controlling existing pain, but it may lessen the severity and the frequency of future attacks, and I hold, with Anstie and with Balfour, that there is no more important prophylactic tonic against cardiac neuralgia than arsenic.[1]

Looking at all three of these forms of disease and endeavoring to coördinate them as to their cause, it is quite possible that the chief factor in the production of pain common to all of them is pressure brought to bear upon the cardiac nerves or upon the cardiac ganglia themselves. The connection between these ganglia and the cervical and brachial plexuses gives a ready explanation of the extension of the pain to the arms that may occur in any form of cardiac pain. In the first or strictly paroxysmal form, true angina, the pressure may be occasioned by the sudden tension of the arterioles; in the second form, by the general sclerotic state of the vessels; and in the third form, with dilatation of the heart, by the attenuation of the heart-walls.

[1] Balfour, Diseases of the Heart, page 281.

ORIGINAL ADDRESS.

ADDRESS ON GENERAL MEDICINE.

BY ALBERT L. GIHON, A.M., M.D.,
MEDICAL DIRECTOR UNITED STATES NAVY.

Delivered before the American Medical Association, at Detroit, Michigan, June 9, 1892.

IN accepting the invitation to fill the breach caused by the illness of your appointed speaker on General Medicine, I can but feel that I have imprudently undertaken a weightier task than, at the time, I fully realized. The very flattering terms in which the appeal was conveyed left me no option to decline, and blinded me to the responsibility I was assuming in agreeing to address this great body of experts in medicine on the vital issues involved in the address expected. Hence, I can only ask your indulgence for my shortcoming in begging you, who lead busy lives, to reflect how impossible it is to do in a few short days what is rightfully the careful, deliberate work of preparation for a whole year. What I say, therefore, shall only be in the way of desultory comment on medicine in general, instead of a systematic digest of the year's achievements in the practice of our art.

To me the most gratifying outcome of the year is not the announcement of new therapeutic means, nor the publication of nosologic novelties; with these you are more familiar than I am, for the search-lights of the medical press now leave no dark corners where men may dig and delve for hidden treasures with which, some unexpected day, to startle the world and bring them fame and fortune. He who works to-day stands in an amphitheater, with the whole profession looking and listening, condemning or commending, through their accredited representatives, the fraternity of medical publicists of every nation; and here, as your reporter of the doings of the year, I find it a very pleasant duty to congratulate the profession on the higher standard of medical editorship, which is becoming our national characteristic. Fervid ambition still impels tyros in authorship to engender premature offspring, but, as with all man's progeny, only the fittest survive; we have a body of stalwart adult and veteran periodicalists, who do their work of enlightenment masterfully and in friendly concurrence. If there be any in this assembly who have not studied these living text-books of our science, day by day during the past year, how idle it would be for me to seek to cover their indifference and neglect with the veneer of a twenty-minute random *résumé* of a few prominent occurrences. Perhaps I can perform part, at least, of the duty imposed upon me in no more practical way than by seeking to awaken in the medical body politic a livelier consciousness of some of its obligations outside of the routine duty of the general practitioner.

One of these obligations is the earnest countenance and substantial support of its organs of intercommunication—not merely by subscribing for them, but by contributing to them the results of individual observation, experience, and research, that all mankind may profit by them. Only with such generous and general support can any medical editor, independently and impartially, fill his waste-basket with the crudities and spurious offerings that are poured upon him, and thus become in fact the censor and preceptor the press assumes to be. Eminent distinction in medical, as in secular, journalism is the reward of pronounced merit. Its office requires the highest order of ability, the broadest culture, the widest range of information. If other specialties be the hands and eyes of the profession, this is the silent, thinking brain, which in vaulted attic, away from active participation in the world's affairs, reflects the impulses that go to make up healthy, active life. Without statistics of circulation, I am confident it would be found, as indicating intellectual progress in medicine, that medical periodicals are more widely read and their contents more carefully scrutinized, while their editorial leaders, notes, and criticisms are more independent, fearless, and unbiased. It is enough to enter a physician's office and scan the periodicals—for there should be more than one—upon his table, to judge of his own mental and professional development.

But if a higher order and wider circulation of current medical literature be indicative of the better self-instruction of the adult practitioner, we have reason to congratulate ourselves upon another sign of the medical progress of the day in the reform of the system of the scholastic education of the young entrants in the profession. It is not necessary to detail here what has been done in this direction. The medical press has fully recorded, while it has advocated and encouraged the advance from the old two full courses, dovetailed with the nominal three years' office instruction of our early days, to the splendid system that finds its fullest expansion in this current year. A minimum of three full courses—in many schools four—and these consequent upon prerequisite academic or collegiate tuition, expressed in one university in no unmistakable terms as six years of continuous college tuition for the intending physician, is a prouder achievement in medicine in this year 1892 than all the additions to its pharmacopeia or all the refinements of its therapeutic theories.

The seven grave and reverend professors of our school-days sit still enthroned on their several chairs, but on loftier eminences, for surrounding them are other seven and more to aid in the tasks that have outgrown their own individual capacities. College faculties have grown apace with medicine, and twenty, forty, sixty, more than a hundred busy teachers stand ready to fill with oil the lamps of those that would see far into the mystery of human existence. All the schools have not gone thus far, nor are all the periodicals such grand exemplars as make their own abilities the sole measure of what is fit or unfit, but there are enough of these great beacon-lights in the North and East—at the fountain-heads of our science at the Metropolis, and at that old Quaker City where medicine was early dignified—in the West, and at the farthest South, to attract within the glory of their brightness all whom it were worth attracting. A few years more and it shall come to be an opprobrium not to have been a graduate of one of these real schools of medicine. That this fulfilment may be hastened, it becomes the duty of every member of this body—which should be every member of the profession—by reason of his own lack of early opportunities; by the years he has had to sacrifice to accomplish what he may have done; and often superlatively well done; by his own comprehension of the sublime greatness of this unrivalled science of Medicine, in which, however old we may be, we can have travelled but a little way—to bear testimony of his appreciation of the increasing immensity of the task devolving upon those who succeed us, and to guide these successors of ours where the light is brightest, the road broadest, and the far-off end ever clear in view. He shall serve medicine best who shall see that the young laborer is best equipped for his life-work by natural aptitude, by proper preliminary training, and by a thorough understanding; light and wide and straight as the way may be made, it is long, toilsome, and up-hill before the highest eminence be reached, beyond which still the overhanging firmament ever defies approach.

But a medical man has not done all his duty in supporting, contributing to, and digesting one or more medical periodicals, however able and meritorious, and in advocating schemes of higher medical education. The physician ought not to isolate himself from active participation in the affairs of the community in which he lives, or of the guild to which he belongs. He should manifest his pride in his vocation by encouraging the congregation of all who share it with him in professional societies, both after the American system of municipal, county, State, and National organizations, and in the special associations of those distinctively kindred pursuits—and this not in the trade-union spirit, for mere mercenary ends—but to promote harmony, good-fellowship, and the mutual improvement of men engaged upon the self-same work. While it is not always feasible to leave home and occupation to attend the annual reunions of the great national bodies, it is within the power of every physician to gather together with his professional neighbors—be they but two or three—in friendly concourse. In this American Medical Association are now enrolled about five thousand members and representing about three hundred and fifty societies. Its membership ought to comprise the entire medical profession of America, undivided by schism or sectional interest, and its representatives embrace every State and minor body in the country, with such modification of plan, perhaps, as may bring it more in accord with our American idea of *E pluribus unum*. Without advocating any particular method of accomplishing this object, I only now desire to point the injunction that every graduate in medicine should be in active fellowship with one or more medical associations, whether for individual improvement, friendly intercourse, or social example.

Nor should the pendulum swing too far one way. The doctor should not be only a doctor—else he be deemed in truth but the leech of the caricaturists in semi-clerical garb, with pompous air and gold-headed cane, or the olive-colored garment and Æsculapian badge by which, in recent years, it has been gravely proposed to distinguish him. Social example has a wider field than the

assembly-room of a medical society. The physician should be the first citizen of his commune, peer in education and culture with its highest classes, and leader in all the sociologic and political movements of the day—and this without abating one jot his professional character or neglecting any whit his professional duties. To the young medical man who listens to me, or who may read my words, I would point as the splendid example of the learned physician, who was the exemplary citizen, the active philanthropist, the busy man of the world and jovial companion, as well as the greatest teacher, lecturer, writer, and practitioner of medicine that this country has ever produced—*Benjamin Rush*—and say, Seek to be worthy and useful, honored and respected as he was. Do not bound your horizon by the walls of your office nor limit your intercouse with your fellowmen to interviews with patients and consultations with brethren of the cloth. Everywhere may be seen the first men of the profession sacrificing social amenities and indulgences, and the companionship of their friends and families, upon the treadmill round of office and clinical labor, knowing neither pleasure nor relaxation until the end comes, when the statistician records another unit in the class of early death-rates. In mental occupations, at least, the physician should be omnivorous and polygamous; in the world, and of the world; loyal above all to medicine as his first love, but not blind to other beauties nor deaf to other harmonies. The medical fraternity is singularly reclusive—yet with strange inconsistence chary of hero-worship if its heroes be its own. During the Civil War it was not excelled in loyalty and patriotism. Two of the three founders of the Military Order of the Loyal Legion of the United States were medical men—one happily still with us—and the Grand Army of the Republic was the sole creation of another. The posts of the latter and the commanderies of the former have their full quota of M.D.'s, who had gained their brevets as commanding officers in the field, as well as those who with equal peril and personal bravery rendered their humane offices to stricken comrades. Yet even these men generously applaud successful generals, and remain silent when their own *confrères* ought to be extolled. Within a month I have seen physicians actively canvassing for subscriptions for statues to great military leaders, who have never contributed one dollar to the monument to their own immortal hero, who signed the Declaration of Independence at the peril of his life, who as a member of the Continental Congress braved attainture as a rebel, and who breathed the breath of life into the figure of the new republic whose Constitution he had helped to frame; who died as he had lived, booted and spurred, with his face to the foe, from whom he was striving to protect his fellow-men. This is not the time for me to enlarge upon this strange anomaly of indifference. Besides, it is a sermon I have often elsewhere preached—sometimes, I fear, to unwilling ears.

The intellectual progress in medicine, to which I have alluded as the laudable characteristic of our day, has naturally led to the recognition of preventive medicine as the type of highest medicine; and the fact that I am so committed to this belief made me hesitate to assume the rôle of your annual reporter, lest I trench upon the ground of my friend Dr. Lindsley; for one cannot speak of medicine in this day, without having first of all before him the problem, How can this disease be best averted, which it is our later office to combat? and the more we learn of the nature and cause and history of disease, which the brightest minds are now studiously investigating, the more urgent becomes this problem. I can, therefore, shield my own delinquency behind the assurance that the Address in State Medicine which is to follow, shall cover this very ground.

The discovery of this and that microbic cause, coincident or inevitable consequent of cause, of one disease after another naturally led to the detection of special germicidal agencies for each, and for a time there was an appalling prospect of preventive hypodermatic tattooing, scarcely less repulsive than the disease, and a bravado resolve to let each particular microscopic devil do its worst. Multiplying a million a minute, it was realized that we could be no match for our Lilliputian enemies, when we could not kill by drugs without at the same time killing ourselves. Apace with the bacteriologists' revelations have been the chemists' syntheses, which, however we might be disposed to recommend to our friends and patients, none of us were brave enough to care to take within our own economies. I confess to no intimate familiarity with these latest evolutions of the laboratory, though the names of some I know by sight very well, even if most of them I can neither speak nor spell. Hence it was a gratifying announcement that we had within ourselves our own defenders and defences. "In the blood is the life thereof" began to have greater significance, through the belief that its living cells devoured these countless swarms of intruders, and thus prevented their disastrous inroads.

It was enough for us, then, by tonic and alterative and stimulant and roborant to preserve the appetites of these domestic phagocytes, and see that they were always in sufficient force to patrol the avenues of the circulation. So, the homely phrase of cleansing the blood of its impurities came back like an old friend in a new dress; but already we are called upon to abandon our bio-therapeutics, with its wars of the microbes, and the final victory of good-minded over evil-minded bacteria, as poetic fancy—and now comes the chemist with potencies that are marvellously alike in looks, which set sail on their mysterious voyage in the channels of the blood to neutralize the toxic products of each malefic wound.

Among the pleasantest recollections of my early life are memories of my old preceptor, whose father, himself a favorite pupil of Benjamin Rush, had conferred the latter's name upon his son, which, doubtless, explains my inherited admiration for that wonderful man. I recall how carefully I was indoctrinated with the belief, which I have not been over-ready to abandon, that nosologic nomenclature was a treacherous guide; that diseases were not so many entities for which specific antidotes were to be sought; and that the cardinal points of diagnosis to guide the medical pilot were the grade of action as indicated by the pulse, the state of the secretions, and the condition of the organic fiber. To-day, we go behind these with lens and test-tubes, to ferret the particular microbe, bacterial proteid, or chemical toxine, which has disturbed the circulation, obstructed the flow of the secretions, or irritated, inflamed, or disorganized the basis structure of the tissues.

It would be unpardonable, therefore, in any Address

on Medicine, however cursory and superficial, that one should neglect to give due credit to the bacteriologic investigators, the scope of whose researches embraces not merely the discovery of disease-causation, but the means for its prevention and cure. The busy practitioner, perhaps, has little time to follow diligently the discussions as to whether the bacteria themselves are the real enemies to health, or only the agents for the introduction of their proteid products, or toxalbumins, ptomaïnes, or other chemical toxines, which are the actual pathogeners. He is chiefly concerned as to the practical results of these investigations, and I am fortunately able to lay before you the very latest precise knowledge on this subject, as set forth only a few days ago by that master in this branch of science, my highly esteemed friend of many years, Lieutenant-Colonel George M. Sternberg, Surgeon United States Army, before the Association of American Physicians, at its annual meeting at Washington. I esteem it a high privilege that I am permitted to transmit to you this authoritative statement of the practical results of bacteriologic research.

Until a very late day, admits Sternberg, the bacteriologist's demonstration of the specific cause in a considerable number of infectious diseases had not resulted in the discovery of a specific treatment for these diseases. Preventive medicine has almost exclusively profited by his researches—as when the discovery of the bacterial parasite placed tuberculosis among the infectious diseases, and the destruction of the sputum became a recognized practical necessity. Of the same order are the precautions of modern aseptic surgery and obstetrics—and the use of antiseptics in traumatic infections, and in localized infectious processes. The use of the microscope in the early diagnosis of tuberculosis and diphtheria is a practical result for which the bacteriologist can justly claim credit—as well as the protection of domestic animals by inoculation largely practised in France, and the prevention of rabies in the human subject, even though the specific infectious agent has not been demonstrated.

The chief purport of Dr. Sternberg's valuable paper (which, perhaps, it would have been well for me to have read *in toto* in lieu of anything else) was to present certain late discoveries, which suggest the possibility that we are on the eve of a new departure in the specific treatment of infectious diseases. Sternberg has described 475 species of bacteria, of which 158 species are pathogenic, although all are not differentiated by morphologic characteristics, and the latest discoveries have established the fact that the pathogenic action of those bacteria that have been shown to be concerned in the etiology of specific infectious diseases is due to the formation of toxic products during the active development of the bacterial cells—and to isolate these toxines and toxalbumins is now the attempt.

Recent experimenters, significantly prominent among whom were three Japanese biologists, having demonstrated that the blood of an animal having a natural immunity to anthrax, if injected into the body of a susceptible animal protected the latter from anthrax, it was subsequently found that the blood of animals having an artificial immunity to tetanus or to diphtheria, injected into susceptible animals, in like manner protected these against the effects of the injection of virulent cultures of the bacilli of tetanus or of diphtheria; finally, Dr. Rudolf Schwartz, assistant at the surgical clinic at Padua, reported the actual successful treatment of an advanced case of traumatic tetanus, by injections of *tetanus-antitoxine*, obtained by Professor Tizzoni from the blood-serum of a dog that had been rendered immune to tetanus; and three other cases of success with this same treatment elsewhere have since been reported.

Since Behring's experiments, in Sternberg's opinion, suggest the possibility that the potent toxalbumin of the diphtheria-bacillus may be neutralized in the bodies of infected animals, and the Klemperers have shown the probability that the blood-serum of animals having an artificial immunity to cultures of the *micrococcus pneumoniæ crouposæ*, when injected into other susceptible animals, renders them immune, Sternberg indulges the hope that croupous pneumonia in man may be arrested by a similar mode of treatment. He further says, from analogy based upon experimental evidence, that the successful treatment of tuberculosis appears to call for the administration of *anti-tuberculin* rather than for that of the active toxic principle elaborated by the tubercle-bacillus. Animals that have an artificial immunity to rabies as a result of inoculation with an attenuated virus, owe this immunity to the presence of an antitoxine in their blood or tissue-juices; and Tizzoni and Schwartz, in January of this year, state their belief that the antitoxine of rabies may probably be substituted for Pasteur's inoculations with an attenuated virus, not only with the object of preventing the development of rabies in man after the bite of a rabid animal, but also that it may prove to be curative after the symptoms of rabies are developed.

Ehrlich's experiments with pathogenic toxalbumins not produced by bacteria, but of vegetable origin, Sewall's showing that immunity from poisoning by rattlesnake venom may be produced by injections of small doses of its toxic agent, and others, give strong support to the view that all infectious diseases are due to the action of substances resembling the toxalbumins already discovered, and that acquired immunity to any of them is due to the formation of antitoxines in the blood of the immuned animal; but while in many infectious diseases the toxalbumin is produced by a specific microörganism, we have no evidence that that this is the case in the strictly contagious eruptive fevers, and none to justify a generalization that all infectious diseases, as smallpox and scarlet fever, are due to specific microörganisms. Sternberg suggests the possibility that in these diseases the toxalbumin which gives them their specific character is a product of the living cells of the body of the infected individual, and says the inference is justifiable that the blood and tissue-juices of an individual who has recently suffered an attack of smallpox or scarlet fever contains an antitoxine that would neutralize the active poison in the circulation of another person immediately after infection, and he holds the experiment warrantable to ascertain whether a small quantity of blood drawn from the veins of the protected person would suffice to arrest or modify the course of these diseases. The transfusion of a moderate amount of such blood might be curative, or confer immunity in advance of infection, and possibly an antitoxine may be obtained from the blood of vaccinated calves that would have a curative action in smallpox. Dr. Sternberg has himself demonstrated by recent experiments with the blood of vaccinated calves that

there is something in this blood that does neutralize the specific virulence of vaccine virus, both bovine and humanized.

I can hardly close without a passing reference to the malady that is on every tongue and is credited with the virulence of a plague—the influenza—the influence, whose mysterious grip upon the physically strong and robust, as upon the feeble and frail, leaving all alike mentally and bodily prostrated, has been attributed to some occult cause acting upon or through the nervous system. It, too, is now known to have its bacterium—the latest microörganism to be discovered, unless the verification of the Berliner Hospital experiments shall give that distinction to the alleged bacillus of measles. The bacterial proteid of influenza has not yet been isolated, and when it is, and its antitoxine shall be demonstrated and successfully administered with curative results, a new era shall indeed have begun in general therapeutics.

Certainly, when prevention and cure shall thus go hand-in-hand, the high estate of preventive medicine can never more be questioned, nor that the wise physician's higher office shall be to guard this glorious human body—the crowning work of the Divine artificer—against these enemies from without, rather than wait to undo their malefic work. If we cannot construct the simplest living cell, how can we hope to intelligently reconstruct one?

Granted this, when disease does invade the body, whether by neglect or ignorance, or deliberate defiance of Nature's laws, shall we idly contemplate the evil and do nothing to mitigate, if we cannot wholly eradicate it? While the world endures, man's folly, as well as woman's, shall furnish work enough for practitioners of the healing art, both general and special, and to them a word of felicitation on their share in the progress of medicine toward a higher level.

The intelligent general practioner is the intellectual primate in our profession—not a mere man of all work, ready to do any job after a crude fashion, without much understanding of its *rationale*. Nevertheless, however universal may become the requirements and opportunities and results of higher medical education, it can hardly be expected in this land of unlicensed liberty, that the class of medical tradesmen can ever be entirely banished; and it may be necessary to establish distinctions, as in other countries, even if it be to surrender to them the all-comprehensive title "Doctor." Medical Examining and Licensing Boards are the coarse sieves that do the preliminary sifting, but medical associations must, perhaps, become the means of ultimately determining, by rigid requirements of fellowship, which are the men who stand upon the same level, and this the higher one—and this very higher level is what has given necessary occasion to specialism. The expert specialist is the natural aid to the expert general practitioner—his ally, not his opponent and rival, the body of specialists being the planetary attendants upon the central luminary that animates and impels them, and only subordinate in that each revolves without interference in its appointed orbit, the whole making one system. That this dignified and exalted recognition of the correlation and reciprocal dependence of the several parts of our profession is coming to be the general understanding is, I think, our greatest reason for self-satisfaction at this time.

THERAPEUTIC NOTES.

The Alkaloids of Opium.—In observations upon animals and upon man as to the comparative utility of the various alkaloids of opium, LEUBUSCHER (*Deutsche medicin. Wochenschr.*, 1892, No. 9, p. 179) found that, next to morphine, papaverine exerted the most active sedative influence upon the movements of the bowel. Narcotine was below papaverine in activity. Narceine and codeine proved entirely ineffective. Thebaine acted as an intestinal stimulant. The administration of papaverine in doses of from one-sixth to a half grain, subcutaneously or by the stomach, to individuals whose bowels had previously acted normally, was followed by no constant results. In some persons, transient constipation was induced; in others, no apparent influence was exercised upon the bowels. In adults with diarrhea, the results were not more conclusive. In children, however, better results were obtained, even large doses occasioning no disturbance of consciousness or respiration, of circulation or of appetite.—*Wiener medizin. Presse*, 1892, No. 14, p. 550.

Elecampane-root and Helenine in the Treatment of Leucorrhea.—PARISOT (*Essai Thérapeutique sur l'Hélénine : son emploi contre la Leucorrhée*) records the conclusions arrived at from the employment of helenine (obtained from elecampane-root) in twenty-seven cases of leucorrhea. The drug was found to be but slightly toxic. Upon mucous surfaces and atonic ulcers it acted as a local stimulant; in excess, it proved to be caustic. In catarrhal endometritis, daily doses of from a third of a grain to a grain of helenine were followed by improvement in the color and consistence of the discharge, and by its ultimate disappearance. The remedy only acted upon the leucorrhea symptomatically. The primary condition must be treated in accordance with the existing conditions.—*Rev. Gén. de Clin. et de Thér.*, 1892, No. 14, p. 214.

The Treatment of Asthma.—At the onset of a paroxysm, by means of a brush an application of a 5 per cent. solution of cocaine hydrochlorate is made to the nasal fossæ as high as possible, or the nares and throat may for four or five minutes be sprayed with the same solution. Should the attack not be aborted, from six to twelve drops of pyridine on a handkerchief should be inhaled. If the attack has reached its acme, a twelfth of a grain of morphine hydrochlorate is administered hypodermatically, and if necessary repeated at an interval of a quarter of an hour. For the constitutional condition, potassium iodide, belladonna, and arsenic are indicated. In case of emphysema, baths of compressed air should be employed.—DIEULAFOY, *L'Union Méd.*, No. 48.

For Chlorosis.

℞.—Ferri et ammonii citrat . . . gr. xv.
Aquæ destillat. } . . āā f℥j..—M.
Aquæ laurocerasi }

Sig.—♏xv hypodermatically—once daily for a week, then twice daily.

BONGIOVANNI, *Journ. de Méd. de Paris.*

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SATURDAY, JUNE 18, 1892.

THE AMERICAN MEDICAL ASSOCIATION,

AT its Forty-third Annual Meeting, in Detroit, decidedly "REPORTS PROGRESS." The venerable DR. DAVIS frankly said that in all respects it was the best meeting the Association had ever held:

First, because of the unexcelled hospitality of the profession and citizens of Detroit. Never before has a whole people seemed so pleased to open doors and hearts to so many visiting friends. In some respects there was a true embarrassment of riches, and in one unfortunate instance there was a failure in understanding—whose fault now matters not—whereby the notification of a most charming entertainment offered the visiting ladies completely failed to reach them, resulting in a double disappointment to would-be hosts and willing guests. The Reception Committee, with DR. CONNOR (who has the love and honor of all) at its head, must be voted the sincerest thanks of all visitors. And it would also seem invidious not to mention the hospitality of MESSRS. PARKE, DAVIS & CO., whose courtesy and bounty must by no means be viewed as due entirely to commercial enterprise.

But more important still remains the solid value of the scientific work done. Everyone agreed that the section work had never been on a higher plane or more thorough. It was a truly remarkable fact that the echoes of the great political contest synchronously going forward in a neighboring city were hardly heard or thought of by this great body of scientific men gathered for a different and, as we believe, a higher and a purer purpose. No allurement, social or political, held the attention from consideration of medical science and progress.

It is impossible that all of the sections should show an equally high achievement, and while none fell below excellence, some, and notably the sections on ophthalmology, surgery, laryngology, and obstetrics, raised the standard of work to a level that future meetings may look back to as models.

But of yet greater and more far-reaching significance was the business and ethical work done in the general sessions. Indications—nay, proofs—were at last emphatically given that the days of the medical politician are numbered, and that the tremendous majority of the members are tired of him and his ways, that they are heartily sick of commercialism masquerading as medicine, and wish to make an end of the everlasting bow-wow and intemperate wranglings altogether too characteristic of the past general sessions, and not entirely absent from those of this year. By the vote to hand over without question the business interests of the Association to an Executive Committee, the members signified their denunciation of the waste of time, of the too great absorption of interest, and of the unseemliness and dearth of dignity of the unwieldy general session.

One other suggestion should be conveyed to those called upon in future to deliver the general addresses: Make the reading shorter! The rush for the doors when a long address is to be read should teach that condensation would hold a greater number of hearers, and insure better attention. Would it not, indeed, be better to abolish the general addresses altogether, or all but one, or let them be confined to the sections in which they properly belong? Section-work is more important than the general addresses, and the demands on the time of the section-worker are becoming so great that the less important factor should give way. There has often been an element of self-seeking and self-advertising in the address that does not square with the new spirit. Work, and not talk, is manifestly to-day's ideal. The manner in which this will be realized is by emphasizing the value of section-work and limiting the interest in the general session. By the delegation of general business to the newly-formed Executive Com-

mittee, mobocracy, wrangle, and general swash are to be replaced by parliamentary government and civilized methods of conducting business. Henceforth the sections are autonomies and govern the general body.

Office and honors should seek the man, and it should be held a positive disgrace for one to commend himself and "wire-pull" to get himself appointed to office of any kind.

Affairs pertaining to the *Journal* of the Association have reached a critical stage. Simply in the interests of good journalism it may be said that nowadays marked ability—editorial certainly not excepted—must be well remunerated. The official organ of the Association should be placed in a unique position, both of trust and power. This it can never have so long as editorial responsibility is hampered by political chicane, and so long as the editor has not power to select, abridge, or exclude reading-matter according to his judgment. If he have not such power he is ruled from without; if he may not be trusted with such power, he is not fitted for his post. The adoption of the plan of publishing accepted papers in separate volumes by each section would make it no injustice to individual members for the editor to be vested with an authority that alone can give him an opportunity to make the *Journal* a fitting mouthpiece of American medicine.

A profound cause for congratulation is to be found in the unanimous indorsement of DR. COHEN'S resolution, sent up from the Philadelphia County Medical Society and the Pennsylvania State Medical Society. This is a sharp, clear lesson to the concoctors of secret nostrums and those misnamed physicians who have consented to become their sales-agents, and especially to those editors of so-called medical journals who sell professional soul and honor with the sale of their editorially-controlled columns to the proprietors of secret preparations.

It is to be regretted that as a body the American Medical Association did not set the seal of its unlimited condemnation upon the KEELEY craze. We well know that it cannot turn aside from its true work of positive science to silence every despicable cur of quackery that may bark at its heels. But in this instance Keeleyism is a national disgrace, and we have a duty to the community and to the future that must not be shirked. All honor to DR. DEWEY, and especially to DR. MOYER, for plain, true words manfully outspoken at an opportune hour.

There yet remains the unhealed wound, the division of the New York State Medical Society. What should be the final decision of the committee appointed with the evident purpose of promoting "secondary union," it is not fitting at present to say. If peace is to be the outcome, let it be "peace with honor." It is unjust to both sides to look for a compromise of principles that must leave the vital question at issue really undecided.

Divested of all accidentals and non-essentials the question is simply, May a physician in good standing consult with an irregular, especially with a homeopath? The position of THE NEWS has been freely expressed. So long as the irregular limits his therapeutic practice to any special law except the law of the cure of disease, it is simply useless to advise with him; no result can come of it. It is dogmatism and unscience to pretend that disease can be cured by only one law, whether that be allopathic, homeopathic, or what not. The true physician aims to cure by any means whatsoever, and he is not a physician who cares more for the method of cure than he does for the fact of cure. But beyond this, of course, as we all know, is the ethical question involved in consultation with a man who for gain gives lip-service to a therapeutic creed but practises *not* according to his creed. How any committee can make it right to consult with such a hypocrite—allopathic or homeopathic—is beyond the limits of our casuistical understanding.

At the same time we admit that the rights of permanent members of the American Medical Association who retain membership in the New York State Medical Society, but personally respect and obey the law of the American Medical Association, ought not to be abridged. Having become members when their society was in good standing, their personal conduct, not that of their society, should govern their present status.

SOCIETY PROCEEDINGS.

AMERICAN MEDICAL ASSOCIATION.

Forty-third Annual Session, held at Detroit, June 7, 8, 9, and 10, 1892.

(Continued from page 669.)

GENERAL SESSION.

THIRD DAY—JUNE 9TH.

RESOLUTIONS passed by the Pennsylvania State Medical Society denouncing the insertion of patent-medicine advertisements in medical journals, and especially in the

Journal of the American Medical Association, were read by the Secretary. The resolutions also criticised the practice of members of the profession giving certificates of indorsement to proprietary remedies. The reading of the resolutions was greeted with applause and they were heartily indorsed by the convention.

DR. WILLIAM PEPPER, of Philadelphia, was presented by President MARCY, and as President of the coming Pan-American Medical Congress, he briefly addressed the convention on the importance and plans of the Congress. He expressed the hope that the Congress would promote good feeling and aid in the dissemination of medical knowledge over the Western Hemisphere.

A resolution was passed thanking the Hon. John Sherman and members of the Senate Committee on Foreign Relations for securing the passage of a bill favoring the Congress.

President MARCY announced the following Committee on Revision of the Code of Ethics: Dr. H. D. Holton, of Vermont, *Chairman;* Dr. H. D. Didama, of New York; Dr. Dudley S. Reynolds, of Kentucky; Dr. D. A. Nelson, of Illinois; and Dr. Benjamin Lee, of Pennsylvania.

The President announced the following committee to confer with a committee from the New York State Medical Society concerning the relations of the members of that Society with the American Medical Association: Dr. N. S. Davis, of Chicago, *Chairman;* Dr. J. H. Rauch, of Illinois; Dr. W. T. Briggs, of Tennessee; Dr. D. S. Reynolds, of Kentucky; and Dr. W. P. King, of Missouri.

A resolution directing the attention of the Trustees of the *Journal* to the fact that the Code of Ethics prohibits all commendatory mention or advertisement of secret preparations, and instructing the Trustees to respect such prohibition in the future conduct of the *Journal* of the Association, was passed.

The Trustees reported that they had held four meetings during the year, there being an unusual amount of business to attend to. The schedule of rates of advertising in the *Journal* had been increased more than 100 per cent. The board contemplates a number of changes, among them the cessation of paying commissions on subscriptions. The *Journal* has been enlarged, but from the increase in the advertising patronage it is thought a press and a folding machine can be bought, so that the *Journal* will be printed entirely with its own type and machinery. A balance of $1797.43 remained on hand after all indebtedness had been paid.

The Treasurer, DR. RICHARD J. DUNGLISON, of Philadelphia, reported a balance of $3076.48 on hand.

The Librarian, DR. GEORGE W. WEBSTER, of Chicago, reported that he had received during the year 1200 medical journals, pamphlets, etc. He had an offer from the Newberry Library of Chicago to bind and render accessible a large amount of material belonging to the Association and stored away in Washington. The Library offered to hold the books in trust and turn them over to the Association on demand. The Librarian was instructed, by resolution, to enter into a satisfactory arrangement. Members of the Association were requested to donate books and other literary matter to the library of the Association.

The Rush Monument Fund Committee reported $3000 on hand, and made an urgent appeal for more funds.

On motion of DR. REYNOLDS, of Kentucky, the Secretary was instructed to send copies of a resolution endorsing the efforts of the American Medical College Association in advancing medical education, to the medical colleges, journals, and societies.

DR. TONER, of Washington, called the attention of the Association to the fact that the centennial of the discovery of vaccination would occur May 14, 1896, and offered a resolution that a committee of five be appointed to arrange for a proper celebration of the occasion; that one day of the session of 1896 be set aside for the presentation of papers pertaining to the celebration, and that, if possible, the Association meet that year in Washington, so that the exhibits and documents on the subject of vaccination will be available. The resolution was unanimously adopted.

DR. A. L. GIHON, Medical Director United States Navy, delivered the Address on Medicine. (See p. 692.)

FOURTH DAY—JUNE 10TH.

On motion, the Paddock Pure Food bill was tabled.

DR. R. HARVEY REED, of Ohio, as Chairman of the Committee on Incorporation, reported that the committee desired further time, and invited members of the Association in favor of incorporation to appear before the committee and state their reasons. Further time was granted.

A motion to constitute a Section on Benevolence was tabled.

A motion to constitute an Orthopedic Section was laid over for one year, in accordance with the Constitution.

On motion of DR. R. H. REED, a committee of five was appointed by the Chair to audit the accounts of the Rush Monument Committee.

The committee appointed last year to consider the resolutions of the West Virginia State Medical Society concerning railway and contract surgeons reported that it had made an exhaustive study of the subject. As nearly as could be ascertained there are about 6000 railway surgeons in the country, of which 1200 are members of the Association of Railway Surgeons. The committee had found it true that railway surgeons often took charge of cases regardless of ethics or of the rights of the physician first called, or of the family attendant. True, the patient, if conscious, had the right to choose his own attendant, but the railway company said to him, If you do not take our surgeon you must pay the bills. The railway company had no right to force their surgeon on the patient, nor had the patient the right to force his surgeon on the railway company. That many railway surgeons worked for inadequate pay the committee found a fact. The committee considered the evil too strong to attack without vigorous measures, and recommended that the Association discourage it and endeavor to prevent it from growing worse. The report of the committee was received and adopted.

DR. C. A. L. REED, of Cincinnati, offered a resolution amending the Constitution so as to admit to membership physicians of Canada and the British North American provinces. The resolution was laid over for a year.

A motion that after July 1, 1897, no one should be admitted to membership in the Association unless he had studied medicine for four years, was laid over for a year.

The report of the work of the Judicial Council was made by its Chairman, DR. JAMES F. HIBBERD, of Richmond, Ind.

The Nominating Committee recommended the following officers for the ensuing year:

President.—Dr. Hunter McGuire, Richmond, Va.

Vice-Presidents.—Dr. H. O. Walker, Detroit, Mich.; Dr. Hawkins Brown, Hustonville, Ky.; Dr. Henry Jones, Watertown, Conn.; Dr. Jessie Haines, Sacramento, Cal.

Treasurer.—Dr. Richard J. Dunglison, Philadelphia.

Secretary.—Dr. William B. Atkinson, Philadelphia.

Librarian.—Dr. G. W. Webster, Chicago, Ill.

Trustees.—Dr. Alonzo Garcelon, of Maine; Dr. Patterson, of Washington; Dr. Leartus Connor, of Michigan; Dr. Perry Millard, of Minnesota.

Judicial Council.—Dr. Cartilidge, Kentucky; Dr. Didamer, New York; Dr. Roberts, New York; Dr. Morris, Baltimore; Dr. Emmert, Kansas; Dr. Davis, Georgia.

To deliver the Address in Medicine: Dr. Hobart Amory Hare, Philadelphia. In Surgery: Dr. H. H. Mudd, St. Louis. In State Medicine: Dr. Walter Wyman, Washington, D. C.

Dr. Hugh O. E. Wingate, of Milwaukee, was appointed Chairman of the Committee of Arrangements.

Milwaukee, Wis., was selected as the next place of meeting, on the first Tuesday of June, 1893.

The President appointed the following committees:

Memorial: Drs. Toner, Davis, Didama, Hibberd, and Wood.

Rush Auditing Committee: Drs. Shoemaker, Berry, and King.

Committee of Conference with Canadian Profession: Dr. C. A. L. Reed, Cincinnati; Dr. W. E. B. Davis, Rome, Ga.; H. O. Walker, Detroit, Mich.; Dr. J. P. Lindsley, Nashville, Tenn.; Dr. Leartus Connor, Detroit, Mich.

The Address on State Medicine was delivered by Dr. J. P. Lindsley, of Nashville, Tenn. He reviewed the fatal epidemics at New Orleans, and the benefit to the city of the cleaning up given it by the Federal troops during the war. He then spoke of the epidemics from which Tennessee had suffered. The prevention of disease and its cure he found two very different things. The annual meetings of the American Public Health Association and the Ladies' Public Health Association of New York are great aids in the cause, as are also the magazines of the country. Medical science is fast becoming public property. The Federal Government is, strange to say, the most laggard of all civilized nations in protecting its people from disease.

A vote of thanks was tendered Dr. Lindsley for his address.

A vote of thanks was tendered Dr. H. O. Walker, of Detroit, Chairman of the Committee of Arrangements, to the profession of Detroit, and the Michigan State Medical Society, for the right royal entertainment tendered the Association.

SECTION ON SURGERY AND ANATOMY.

THIRD DAY—JUNE 9TH.

Morning Session.

DR. HERMAN MYNTER, of Buffalo, N. Y., read a paper entitled "Is Amputation Ever Indicated in Coxitis?" He stated that primary amputation is being gradually abandoned for excision. He considered only secondary operation, when the caries has recurred and the discharge has increased. The apparent recurrence is probably only a continuance of the original trouble, and unless the whole of the diseased shaft be removed, even if the wound heal, a useless joint will be the result. Two cases were related to show the benefit of removing all of the diseased structure, plugging the acetabulum with iodoform-gauze, and continuing drainage for some weeks by means of a counter-opening posteriorly to the original incision. In both cases a good, firm, movable joint, with one inch and one and a quarter inches of shortening respectively, was the result.

DR. RIDLON stated that unquestionably in the majority of cases the trouble began outside of the joint, in the bone, and the lack of ability to locate the focus of the disease raised the question as to the wisdom of operating or awaiting the results of local treatment. Of course, if the patient is growing worse, he should be operated on. Unless one can be sure that he will be able to remove all the diseased tissue and cure the case without relapse within the time in which wounds usually heal, it is a question whether the operation and the chances of septic infection should be taken. Dr. Ridlon is prejudiced against operation, unless as a life-saving measure.

DR. ANDREWS, of Chicago, thought that in a large proportion of cases, after suppuration has commenced, excision will be the best way out of the difficulty; but this may not be absolutely necessary to life, as has been demonstrated by cases that have done well without excision. Such cases, however, recover more quickly after operation. Dr. Andrews favors increased employment of operative procedures, but there are exceptions to all rules.

DR. MYNTER referred his excellent results to the great care in removing every portion of the diseased tissue. He did not get primary union and did not want to, as he thought the wound did better if packed with idoform-gauze and allowed to granulate.

DR. T. A. MCGRAW, of Detroit, Mich., read a paper on "The Cremasteric Reflex in Varicocele." He stated that the cause of varicocele has never been satisfactorily explained. A peculiar formation of the veins in the vicinity, great muscular action, and excessive venereal excitement are recognized as causes, and yet many men are subject to all of these without having varicocele. Local injuries, rendering the vessels incapable of performing their function in propelling the blood onward to the heart, is undoubtedly a cause. In some persons there is a natural tendency to a varicose state of the veins. These cases may be considered incurable. The assistance given to the general venous circulation by the related muscles is well understood, but the fact that the circulation in the spermatic veins is largely dependent on muscular contraction seems to have been forgotten. Every man would have a varicocele if it were not for this contraction. Among the muscles concerned, the cremaster muscles are the chief. They cannot contract without squeezing the blood out of the veins, and this is their true and only important function. The force acts from below upward, and the contraction proceeds probably from the irritation excited in the veins

by their distention. In later life the walls of the veins become more unyielding and can better afford to be without support. A vigorous, young man, putting all his power into some supreme effort, powerfully contracts his abdominal muscles, and if at the same time the cremaster muscles likewise powerfully contract, the blood, shut off, must either burst the vein or stretch it beyond repair. In the one case an hematocele, and in the other a varicocele will result. The cremaster muscle varies much in different men, and in some cases seems to be wholly absent. Cases of varicocele that are ascribed to excessive venereal excitement are probably due to a paresis of the nerves of the cremaster. Though in a few cases of varicocele the cremasteric reflex is nearly or quite normal, in the majority of cases there is decided disturbance in the mechanism by which it is engendered. Dr. McGraw takes issue with those authorities that ascribe to hernia the power of producing varicocele. The following conclusions were arrived at: 1st. That the pathology of varicocele is variable, cases differing from one another, both as regards cause and pathologic conditions; 2d, in one group of cases the fault lies in the walls of the veins, which have become weakened either by injury or from congenital or acquired disease; and 3d, in another class of cases the primary diseases involve either the cremaster or the nervous mechanism by which it is controlled; these cases are marked by a deficiency in the cremasteric reflex.

DR. MYNTER, of Buffalo, asked if the knowledge that the cremaster muscle may influence the production of varicocele would have any bearing on the treatment.

DR. MCGRAW replied that this would depend upon whether or not the varicocele were due to paralysis; if so, electricity might be used; but if the cremaster is wholly absent, removal of the scrotum would be the best treatment. This support, however, cannot make up altogether for the intermittent support of the cremaster muscle.

DR. DE GARMO, of New York, stated that he could confirm two of the points made. He has very carefully watched the effect of pressure as a cause of varicocele and has seen many cases with hernia, but he does not think that either has anything to do with the production of varicocele, even if bad trusses are worn. He could not recall any case of varicocele coming on late in life, and has never seen a case from strain. He had a case of combined hernia and varicocele, which was operated upon by another gentleman for the latter and the hernia was cured.

DR. MCGRAW concluded by saying that his paper had reference only to the pathology. He had refrained from saying anything about the treatment.

The Secretary, DR. F. W. MANN, read the paper on "Visceral Phlebotomy," by GEORGE HARLEY, of London, Eng. Two illustrative cases were reported. In the first case the liver was punctured to a depth of eight inches in a patient dying from the combined effects of a greatly enlarged, hard, and inflamed liver, ascites and marked anasarca. Recovery followed, with no return of the disease. In the second case, the liver, enlarged and inflamed, and the seat of strumous abscesses, was likewise punctured. A copious hemorrhage took place through the bile-ducts into the intestine. The liver became smaller. A perfect cure resulted. Pulmonary phlebotomy is the most difficult form of visceral phlebotomy, the constant movement of the lungs making it difficult to close the wound; but it has been done with great benefit to the patients. Dr. Harley recommended the performance of visceral phlebotomy on every accessibly situated internal organ in preference to leeching and cupping.

DR. F. J. THORNBURY, of Buffalo, read a paper on "Advances in Aseptic Surgery."

Afternoon Session.

DR. C. E. RUTH, of Muscatine, Ia., read a paper on "Gunshot Wounds of the Cerebrum," in which he reported several cases demonstrating that, contrary to the generally-accepted idea, a bullet in the brain can be probed for and successfully removed, and that, with careful and delicate manipulation, there is no excuse for puncturing the normal brain-tissue in the search for a ball. Several instruments were exhibited that had been made especially for this department of brain-surgery. As a result of operations and experiments in this line of work, the following conclusions were reached: 1st. That a ball can be followed in its course through the brain; 2d, having been followed to its point of impact on the opposite side of the skull, a trephine disc should be removed, drainage be established, and the ball removed, if possible; 3d, that that probe is best that gives the greatest resistance to penetration, with the least possible lateral friction on its shaft by the collapsed canal; 4th, that a hemispherical front porcelain-tip and an aluminium shaft answer the indications for lead-detection (resistance if of proper size, weight, etc.) required in a probe, better than anything else; 5th, that one intending to follow balls through the brain should thoroughly familiarize himself with the resistance that the normal brain offers to penetration by the probes he expects to use, that he may know when he is applying force within safe limits; 6th, that he should frequently grasp and remove balls and pieces of bone with the forceps of his choice, on the cadaver, before attempting it on the living human subject.

DR. EDWARD MARTIN, of Philadelphia, read a paper on "Air in the Veins," based on experimental work on dogs and monkeys. It was found impossible to have an animal aspirate air into the veins. Even by opening the jugular vein of a dog, and creating a vacuum in the chest, it was impossible to have air sucked in, owing to the collapse of the vein; though if the vein be hardened by disease or artificially prevented from collapsing, the entrance of air is possible. Even if a few bubbles were aspirated, it did no harm. In the monkey, however, the result was quite different, the animal dying in thirty or forty minutes when air was aspirated. In the human being, aspiration of air is one of the most dangerous events that can happen. Dr. Martin related that he had once wounded the axillary vein, and two or three times heard a suction-sound. He was convinced that this was due to air in the tissues and not in the vein, as no evil consequences followed. In the principles of treatment, no advance has been made over the suggestions contained in the writings of Senn. When a vein is opened, the treatment is simply mechanical, and consists in controlling the circulation from the wound to the heart.

DR. B. MERRILL RICKETTS, of Cincinnati, presented a report of a "Case of Talipes Equino-varus." A boy, fourteen years old, fairly well nourished from time of birth, presented talipes equino-varus in a most aggravated form.

The foot was turned straight backward, so that the weight of the body came directly upon the astragalus. As a result, the plantar surface of the foot was thrown upward to such a degree that the under surface of the toes was the only part that touched the ground in the erect posture. It was stated that the left foot at birth had been in as bad a condition as was the right, but by manipulation the deformity had been corrected.

Upon examination it was found that the ankle-joint of the left foot would allow of more than a normal extent of motion in all directions.

In the operation antiseptic precautions were taken. A Barton's bandage was applied, to make the operation as bloodless as possible. An incision was made from the lower extremity of the fibula in the direction of the lower extremity of the tibia, exposing the ligaments and tendons of the joint. These tissues were not divided, but crowded aside to facilitate the removal of the astragalus, which was found greatly deformed, having lost its outlines. An attempt was then made to bring the toes forward to their normal position, but not successfully. The little remaining part of the Achillis tendon being very dense, it was necessary to divide all of the tissues posteriorly, before the foot could be brought forward to its normal position. The plantar fascia was so dense that it had to be divided in order that the foot could remain in its normal position. The foot was retained in position by means of straps, which it was found exerted too much pressure, so that they were removed at the expiration of the fourth day.

The temperature remained below 100° after the tenth day; on one occasion having reached 104°. Recovery was thence uninterrupted, the foot keeping its normal position without support. The boy was on crutches at the expiration of four weeks, and left the hospital at the end of ten weeks. A shoe is now worn, and he goes about with the aid of crutches.

DR. RIDLON, of New York, stated that there are certain cases of congenital club-foot that could not be cured without excision of the astragalus, although some claim that all cases can be cured by stretching and dressing, and others claim that all can be cured by tenotomy. He related a case in which both of these methods had been carefully employed without success. Finally, the astragalus was removed and found to be wedge-shaped posteriorly, which accounted for the difficulty in keeping it in place. The result was perfectly satisfactory.

DR. SAYRE, of New York, stated that he would not go so far as to say that all cases of club-foot could be cured without removal of the astragalus, but he had never seen a case that required excision. Even if the astragalus is distorted, the bones are at first soft and malleable, and if the foot is put in the correct position they will be moulded. He has seen advanced cases in persons of from twenty-six to forty-six years of age, who had been without treatment since childhood, and had always found that section of the ligaments and all holding soft tissues, combined with great force in putting the foot in the normal position, had been sufficient. No case should be considered cured until it can be retained in position without apparatus. Something may be said for operation if the patient cannot afford the time for the slower treatment.

DR. B. MERRILL RICKETTS, of Cincinnati, read a second paper, entitled "Amputation of Scrotum and Circumcision." He reported the case of a white American, twenty-two years old, well developed, both mentally and physically, of nervous temperament, without syphilitic taint, or predisposition to tuberculosis, whose scrotum and prepuce were enlarged and much thickened. The parts were covered with papillomatous growths, varying in size from pinheads to that of a large pear, with also an occasional angioma. The right leg was also covered with these growths. A bandage had been worn on the leg for a long time. Upon removal of the bandage the leg would immediately swell to twice its normal size, with a characteristic glistening appearance. It was thought that if these growths were disturbed, or the skin punctured, an exudation of lymph would take place, and from five to thirty ounces escape. This fluid was of the color and consistency of thin cream, slightly tinged with blood. It was bitter, and crystallized on evaporation.

The man gave a history of having, at the age of eighteen months, an abscess in the right groin, from which time his trouble dated. Every year he would have from three to four chills, followed by a rapid rise in temperature, which would range from 103° to 104.2° for from twenty-four to forty-eight hours. These attacks were preceded by enlargement of the limb, loss of appetite, glassy eyes, inactive mind, constipated bowels, and great tenderness in and about the right iliac fossa. The glands in this region were greatly enlarged. Circumcision and scrototomy were advised, and readily assented to. Circumcision was first performed, with the understanding that should it be followed by bad symptoms the scrotum would not be operated on. No unpleasant symptoms appeared, and two months afterward the second operation was performed without any difficulty. During the following year the man had but two or three chills, followed by fever. He gained in flesh, and felt entirely satisfied with the operation. The operation was performed rather as a palliative than as a curative measure.

DR. B. MERRILL RICKETTS, of Cincinnati, also presented a paper entitled "Neurectomy of the Great Sciatic Nerve for Painful Neuroma as the Result of Gunshot Injury." He reported the case of a tinner, twenty-seven years old, who presented a history of excruciating pain for two years, after having been shot through the leg. He had become addicted to the morphine-habit, taking a maximum of fifteen grains daily hypodermatically.

Examination showed that the ball (of thirty-eight caliber) had passed obliquely through the left leg to the inner side, three or four inches above the condyle, anteriorly to the tendon of the biceps, passing upward at an angle of forty-five degrees, and coming out at about the middle of the thigh externally. The patient stated that when shot he perceived the sensation in his toes, and not at the site of injury. He removed his shoe, expecting to find an injury of the foot, but was quite surprised to find the injury higher up on the leg. Within an hour after

the injury the pain was equally distributed over the foot and leg below the knee.

In the operation the necessary aseptic precautions were taken; the man was anesthetized, and a rubber bandage was applied from the toes upward. An incision, four inches long, was made in the median line, encroaching posteriorly on the popliteal space, exposing the nerve, which was found enlarged to three times its normal size for a distance of one and one-half inches. The nerve divided much higher up than usual. This was fortunate, for had the arrangement been normal both branches would have been divided. The internal branch was the injured one. The external branch was adherent to the internal for a distance of three inches. A section was made one and three-quarters inches long, including the entire enlargement. When the section was made the leg was flexed, and retained in this position by means of straps. A drainage-tube was introduced, and the wound was closed by silk sutures. The tube was removed at the end of the third day, and the cutaneous stitches at the end of the fifth day. The temperature rose to 100° on two different occasions, and remained at about 99° during the course of recovery. The pain gradually subsided. The morphine was withdrawn, and small doses of bromide and chloral were given instead. After the twelfth day the man was allowed to be up and around on crutches. He left the hospital on the twenty-second day, remaining free from all pain and the morphine-habit.

DR. GEORGE E. FELL, of Buffalo, N. Y., read a paper entitled "Forced Respiration (Fell Method) per Face-mask and Tracheotomy in Diphtheria." He called attention to an interesting case of diphtheria occurring in a family of four young children, all of whom were taken down with the disease. The first child was given home-treatment and recovered, while the second, under similar treatment, without the knowledge on the part of the parents of the seriousness of the disease, passed to a rapidly fatal condition. Dr. Fell was called and proceeded to perform tracheotomy. The patient, a boy of seven years, becoming unconscious from cyanosis, it was unnecessary to give an anesthetic. Before the operation had proceeded far, the onset of asphyxia was indicated by rapid dilatation of the pupils. Had it not been for the forced-respiration apparatus that had been provided, the patient would have died immediately after the initial incision; it was found necessary before the operation of tracheotomy was completed to apply the forced-respiration apparatus some five or six times after auto-respiration ceased. Subsequently, forced respiration was kept up through the tracheotomy-tube for some time before the patient became conscious. Hydrogen dioxide was freely used in the mouth and nasal cavities with gratifying results, and also to the tracheal incision. Many times, when dyspnea became great, the liquefaction of the membranes in the bronchial incision was brought about by the remedy so as to relieve the patient. In some instances, when this would not relieve the patient, forced respiration through the tracheotomy-tube overcame the cyanosis and enabled the patient to breathe for himself for some period of time. The exudation, however, continuing to interfere with the respiratory process, the patient succumbed some sixty hours after the operation was performed. The case illustrates the value of forced respiration by means of the face-mask in conditions in which membranous exudates interfere with respiration, and in membranous croup and diphtheria; and also the value of hydrogen dioxide in liquefying the exudates in such conditions.

DR. H. O. MARCY, of Boston, by means of stereopticon slides, gave a number of "Illustrations of Methods of Operating in Hernia." These pictures were from the engravings of the old masters, one edition having been engraved as early as 1756. The plates were from Gay, Sir Astley Cooper, Langenbeck, Scarpa, and Bougeray, and the points of interest in each were briefly brought out.

DR. W. H. MYERS, of Fort Wayne, Ind., read a paper entitled "Treatment of Compound Fractures," laying particular emphasis on antiseptic and aseptic treatment. He presented statistics showing the great decrease in mortality since the introduction of these methods. He does not employ drainage. He believes the ideal dressing to be that which affords the most perfect rest; therefore after thorough antiseptic cleansing he closes the wound with protective, applies several thicknesses of bichloride gauze, and then completes the dressing by plaster-of-Paris bandages. These are allowed to remain for fourteen days or longer, unless there are indications to the contrary. Amputation is often too hastily resorted to, and especially is this noticeable along railway lines. The surgeon should remember that upon his decision the future of the patient depends. A case was related in which two and one-half inches of the tibia were carried away. Four pieces of bone were removed and carefully replaced after the wound had been cleansed. An immovable dressing was applied and allowed to remain for twenty-eight days. The patient made an uninterrupted recovery, and his condition was all that could be desired.

DR. RICKETTS, of Cincinnati, stated that he had read two papers in which he took the ground that in cases of fracture the surgeon has a right to make an exploratory incision if there be doubt as to the character of the injury. If, in a case of compound fracture, the dislodged bone can be returned and union be secured, there is no reason why, if there be two or more fragments, the surgeon should not cut down and wire the pieces. In the majority of cases wire should be used to keep the pieces in position.

DR. RIDLON, of New York, stated that he had heard some surgeons say that bones will not unite if the periosteum is not in place. He could not understand why this should be, if, in abdominal surgery, portions of the peritoneum are taken off and nothing is thought of it.

DR. NORTH, of Michigan, related that he had seen a great deal of railroad surgery. He strongly advised against the use of the knife if it can be avoided, even if the products of ulceration flow out of the wound. Even a year afterward an operation can be successfully performed.

DR. RICKETTS, of Cincinnati, added that in operations on the skull the button of bone is returned, without the periosteum, and union takes place.

DR. GRIFFITH stated that he had used decalcified chips of bone, and had bone develop from them, and he did not think the periosteum was necessary.

DR. MCCAUL, of Michigan, related a case of trephin-

ing, in which he returned the button without the periosteum, and the wound is perfectly sealed to-day.

DR. EMMETT, of Iowa, stated that there is no question about bone-grafts growing. He had seen cases in which Senn's decalcified bone-grafts were used with perfect success.

The Chairman, DR. GASTON, stated that his observations in this line confirmed the views to which he had just listened. He related a case of extensive suppuration along the tibia, denuding two-thirds of the anterior part of the bone of its periosteum. Amputation was proposed, but it was decided to wait, and to-day the case promises complete recovery.

DR. EMMETT related a case of which he had read, in which a patient with a seriously injured foot was advised to have it amputated, but refused. Gangrene set in, and the leg had ultimately to be amputated above the knee. The man sued the physician for $5000, claiming that it was the physician's duty to use his own judgment. He won the suit, and the Supreme Court sustained the decision, saying that the physician was liable for damages, as the patient did not know whether the limb should be operated on or not.

DR. NORTH inquired as to the course to pursue if, in spite of every treatment, non-union continues.

DR. DUFFIELD, of Detroit, stated that if the Supreme Court of the State of New York decides that a patient can say he will not have his limb amputated, and then holds the surgeon responsible for not operating, the surgeon occupies a peculiar position. He had always contended that the patient should decide. The best way is to call counsel, tell the patient the decision, and if he refuses to abide by it let him get another surgeon.

DR. RICKETTS, of Cincinnati, replying to Dr. North, stated that mercuric chloride in large doses internally would cause union of the bone.

DR. MYERS stated that he has had good results from sawing off the extremities of the bone and nailing them together. He had seen Mr. Macewen, of Glasgow, after trephining, break up the button into small fragments and replace them.

DR. RIDLON, speaking of non-union, referred to two cases of compound fracture in which non-union persisted, in spite of all the numerous plans tried. His plan was to put the limb in position and hold it there, preventing motion laterally and longitudinally, and then constrict the limb above the point of injury by a band, producing edema about the injured part. The legs were allowed to hang down, and in both cases union was perfectly solid.

DR. MILTON, of New York, related a case of non-union cured by the patient being allowed to use the leg.

DR. GRAVES, of Michigan, thought that cases of so-called non-union were really cases of delayed union.

The CHAIRMAN reported a case of non-union cured by forcibly rubbing the extremities of the bone together so as to excite inflammatory action.

DR. EDMUND ANDREW, of Chicago, read a paper entitled "The Powerful Effect of Sulphonal in Arresting the Cramps of Fractured Limbs and other Reflex Spasms." He stated that he had first observed the remarkable anti-spasmodic power of sulphonal in a case of painful cramps from a recently fractured femur. Fifteen-grain doses arrested the spasms both when the patient was awake and when he was sleeping. In another case, one of slight fracture of the spine, the patient, whenever he fell asleep, was harassed by cramps of the intercostal muscles adjacent to the injured vertebræ. Sulphonal in fifteen-grain doses completely arrested the trouble. As the drug is slow in action, it is best in nocturnal spasm to give it two or three hours before sleeping-time. Eight-grain doses three times a day have given excellent results in nocturnal seminal emissions. Perhaps the remedy would act well in premature ejaculations in copulation. Two cases of obstinate hiccough were arrested by its employment. A gentleman long troubled with nocturnal cramps of the legs and thighs, increasing with age, got relief from fifteen grains taken before retiring. After two months one dose sufficed for nearly a week. In ten weeks he no longer required the remedy. A young man who had sustained a severe contusion of the right sciatic nerve, suffered from a constant painful, jerking motion of the thigh and leg, resembling chorea. Two fifteen-grain doses of sulphonal completely arrested the distressing movements. From the foregoing it seems that the anti-spasmodic power of sulphonal is of more importance than its sleep-producing influence.

DR. BROOKS, of Iowa, stated that he had sustained a fall, resulting in a severe synovitis, which caused sudden spasmodic contractions of the muscles of the leg during sleep. Sulphonal was prescribed and the spasms were relieved from the first.

DR. MURPHY related the case of a pregnant woman who suffered much at night from cramping in the legs. He prescribed sulphonal and nearly always found that only one dose was necessary to obtain relief. He has used the drug in two other cases, with excellent results.

DR. JAMES A. WORK, of Indiana, has a patient to whom he has been giving sulphonal for rheumatism, attended with cramps of the legs at night. The remedy acted admirably, but the question has been asked if there was not danger of the establishment of a habit. It is a relief to know that as the case progresses less of the drug is administered.

DR. J. P. STRITTMATTER, of Philadelphia, stated that he has found the drug useful in the low, nervous form of typhoid fever, accompanied with jactitations. He related a case in which there had been no sleep for six days. Twenty grains of sulphonal were given and the patient slept for twenty-four hours, only being aroused to take food. Recovery was thenceforth uninterrupted.

DR. S. L. MCCURDY, of Dennison, O., read a paper entitled "Amputations in the Light of Mechanical Science *versus* Prothetical Science." He expressed the view, contrary to general teachings, that joint-amputations made better stumps than amputations above the joint. He gave as reasons, 1st, that the broad articular extremities of the bones made the more durable stumps; 2d, the knobs formed by the condyles at the knee and by the malleoli at the ankle, furnish points about which the socket can be adjusted, preventing the objectionable pumping motion of a cone-stump; and 3d, artificial-limb makers can and do make limbs for disarticulations. Dr. McCurdy considers that Syme's operation makes the best and most comfortable stump possible. Sawing off of the condyles and malleoli is a misguided step; every surgeon should do disarticulation if he felt assured the mechanic could fit the stump. Artificial-limb

makers should make their limbs so as to have the bearings upon but four points: 1st, the ankle, as in Syme's; 2d, below the knee, or about the head of the tibia; 3d, the knee; 4th, the perineum.

DR. ANDREWS inquired as to the use of an artificial foot after Pirogoff's operation.

DR. MCCURDY replied that this operation should not be made at any time, but a good foot can be made for this operation.

DR. KING, of Missouri, disagreed with almost every point made in the paper, basing his objections on considerable experience in railroad surgery. He considered the cone-shaped stump the best. The patient is not expected to walk on the end of the stump. He made it a rule, whenever he could, to go above the joint.

DR. CRAIG, of Pennsylvania, stated that he had made a special study of the surgery of the lower extremity, and he agreed with Dr. King. The effect of saving the joint after removing the ball of the foot is to make the man a permanent cripple. Dr. Craig believes that every foot to be removed near the ankle-joint would be better removed half-way between the ankle and knee.

DR. MCCURDY agreed that the proper thing to do, if one has to go above the ankle-joint, is to go several inches above; but he said that he found artificial-limb makers who do make a foot to fit Syme's amputation.

DR. JOHN B. ROBERTS, of Philadelphia, presented a paper on "The Cosmetic Surgery of the Nose." He called attention to the ignorance of the non-professional public on this subject, which leads many sufferers to resign themselves to unsightly deformity. A plea was made that physicians discourage the correction of such disfigurements and undertake operative measures for their relief. Slight operations will often effect an astonishing change in the personal appearance of the patient, and even extensive operations are devoid of danger. No marked scarring occurs if the operations are properly done. Oblique incisions, antiseptic precautions, primary union, and the location of the incisions in grooves of the skin make external wounds unnoticeable. In addition, many of the operations are done within the nose, the interior of which is reached by the nostrils or through the mouth under the upper lip. No cosmetic surgeon will be successful who does not recollect the frequency of tertiary syphilis of the nose. Unless its frequent occurrence is constantly in mind, he may undertake to excise gummata and allow destruction of the nose from syphilitic ulceration. All doubtful cases should be tested with large doses of mercury and potassium iodide. The various deformities of the nose that can be successfully treated, and the means that the surgeon may employ for their correction were described. All sorts of twisted and crooked noses were said to be amenable to properly directed operation. The correction of the sunken and distorted organs due to syphilis was a prominent subject of consideration; and methods of inserting metallic bridges in substitution for the bony bridge were detailed.

DR. ERNEST LAPLACE, of Philadelphia, presented a paper on "Operative Procedures at the Base of the Brain," in the course of which he stated that the base of the brain is contained in three different fossæ, each of which is separate and on a different plane from the others; but each can be reached with the trephine. To open the anterior fossa the trephine must be applied immediately above the supra-orbital arch, at its junction with the temporal ridge.

A set of malleable platinum-wire instruments, flat and wedge-shaped, are used for separation of the dura from the skull, and can be gently pushed over the rugosities of the skull, so as to reach all parts of the floor of the anterior fossa.

For the exploration of the middle fossa the trephine is applied on a line extending from the middle of the zygomatic process to the external angular process of the frontal bone.

The posterior fossa may be reached by applying a trephine immediately above the external occipital crest to the right or the left. This exposes the cerebellum below the lateral sinus. These operations were successfully performed on dogs. The chief advantage resulting from them will be the thorough application of scientific drainage in cerebral injuries, for the brain, being enclosed in a bony box, cannot expand when irritated or inflamed; hence the absolute necessity of a point of least resistance whence drainage can take place. Hemorrhage is to be controlled with iodoform-gauze packing, or by gnawing off the edge of the bone and applying a hemostatic forceps. Strychnine is to be relied upon chiefly to restore physiologic equilibrium. Illustrative of the principles outlined, the case of a boy was reported who ran a fencing-foil under his left eye through the sphenoidal fissure into the brain. Consciousness was lost, and right hemiplegia and aphasia followed. Fifteen days after the accident the middle fossa of the brain was reached by trephining, and the platinum-wire instrument (a miniature egg-beater) insinuated as far as the cavernous groove, a teaspoonful of clotted blood being withdrawn. Improvement soon followed, and the case made a complete recovery. A remarkable feature was the amount of serous oozing from the trephine-opening, giving evidence of the great intra-cranial tension.

SECTION ON PRACTICE OF MEDICINE.

THIRD DAY—JUNE 9TH.

DR. W. W. PENNELL, of Fredericktown, Ohio, read a paper on "The Genesis of Croupous Pneumonia," which will be published in THE MEDICAL NEWS.

The Nominating Committee reported that they had selected the following as members of the Executive Committee of the Section: To serve for one year, DR. H. A. HARE, of Philadelphia; for two years, DR. I. ATKINSON, of Baltimore; for three years, DR. N. S. DAVIS, JR., of Chicago. The report was adopted, and the members named were declared elected.

DR. CHARLES G. STOCKTON, of Buffalo, was elected Chairman, and DR. GEORGE WEBSTER, of Chicago, Secretary of the Section for the ensuing year.

DR. J. M. ANDERS, of Philadelphia, read a paper on "Cardiac Indications and Contra-indications in the Treatment of Acute Lobar Pneumonia." He alluded to the well-known fact that in acute lobar pneumonia the cause of death is usually heart-insufficiency. This failure of heart-power is attributable to the operation of one or all of three etiologic factors. Of these, the effect upon the heart of the ptomaïnes in the blood produced by the growth of the pneumonia-coccus is the most

potent. These toxic substances exercise a more or less pernicious influence in all cases of pneumonia, and in a great many instances are the chief, or even the sole, cause of death. When brought about in this manner, cardiac exhaustion demands the exhibition of salol or other antiseptics, as well as such cardiac stimulants and tonics as alcohol and strychnine. Digitalis is to be recommended only when the pulse becomes very rapid, fulfilling the important indication of facilitating the nutrition of the heart by lengthening the period of the diastole. High temperature should be reduced by the application of cold to the surface, both locally and generally. Such internal antipyretics as phenacetin, antifebrin, and antipyrin are to be eschewed.

The second influential factor in effecting exhaustion of the heart's power is overfilling and consequent dilatation of the right ventricle, associated with congestion and edema of the non-consolidated portions of the lungs. As the right heart is chiefly affected it will require close attention. It was insisted upon that the effect of the toxic matters in the blood on the heart always predisposes to exhaustion of the right ventricle.

The indications, in such instances as these, are to lessen the work of the right heart, on the one hand, and to restore, as far as possible, the heart's power on the other hand. Cupping and leeching are measures designed to remove some of the burden from the right ventricle, and in aggravated forms of collateral fluxion free bleedings from the median basilic vein are to be recommended. Arterial relaxants have recently been highly recommended to accomplish the same object, but with the possible exception of nitroglycerin, which in small doses acts as a cardiac stimulant, they have no legitimate place in the treatment of pneumonia. To support the heart the use of digitalis was advocated, as this drug increases the capacity of the heart for labor. Alcohol in moderate doses is useful, and strychnine in full doses is of the first importance. Inhalations of oxygen are to be employed when cyanosis persists despite the use of the measures mentioned.

The third influential cause of death is the formation of "heart-clot." In lobar pneumonia there is a greatly increased tendency for the blood to coagulate, and cardiac thrombi of large size are of more frequent occurrence than is generally supposed. The formation of such clots is likely to be followed by cardiac exhaustion, cyanosis, and a rapidly downward course to a fatal termination. A feeble right heart and a sluggish pulmonary circulation probably precede and facilitate such formation in many instances. To prevent this unfortunate accident, as well as to aid in resolving the thrombi, the preparations of ammonia, which tend to maintain the fluidity of the blood are to be employed. In addition alcohol, strychnine, and digitalis should be administered. The last, however, should be employed cautiously.

DR. BEATTY, of Kentucky, called attention to the fact that phenacetin is not objectionable as an antipyretic, because it does not affect the heart unfavorably. He thought that venesection is never indicated. He advised the use of ammonium preparations, but thinks that they have no influence upon clots already formed. Digitalis has more value than all other remedies combined, when there is obstruction to the circulation.

DR. TRUAX, of New York, expressed himself strongly in favor of venesection in suitable cases. It is the most valuable agent in overcoming obstruction to the circulation. It will save hundreds of lives.

DR. HERRICK, of Cleveland, expressed his want of agreement with the current theory as to the cause of pneumonia; and stated that upon our belief in the cause will depend our treatment. The antecedents of pneumonia begin in the abdominal cavity—in the organs of digestion and assimilation.

DR. PENNELL, of Fredericktown, Ohio, called attention to the fact that while Dr. Anders believed the cause to be specific, the treatment recommended was non-specific. When the right heart is wearied, he said, stimulation does no good; the heart must first be relieved by venesection.

DR. DIDAMA, of New York, spoke favorably of venesection in certain cases.

DR. MUSSER, of Philadelphia, stated that each case is a study by itself, and may easily require very different treatment than others. The disease is specific and infectious, but there is as yet no specific treatment. The three measures to be employed are cold, bloodletting, and rest. Every case is, however, not suitable for venesection. When in the early stages the respirations become accelerated and the temperature elevated, bloodletting may be indicated, though the physical signs may not indicate extension of disease. Rest is to be secured by careful nursing and the use of opium. Strychnine is at times most valuable. If heart-failure be imminent, nitroglycerin is valuable. Alcohol and ammonia are preferable to digitalis.

DR. W. F. HUTCHINSON, of Providence, R. I., read a paper on "Darwinism and Disease," in which he referred to a number of the remnants of development, such as the coccygeal gland and appendix vermiformis. The different processes of degeneration, he said, are simply vital processes gone wrong. Tumors vary in frequency from lipoma to carcinoma, because that is the order of difficulty of cell-imitation. Hypertrophy and regeneration demand still greater effort on the part of the cell.

DR. E. L. SHURLY, of Detroit, read a paper on "The Analogy between Acute Idiopathic Pleuritis and Acute Articular Rheumatism." He maintained that there is a basis for such an analogy on embryologic grounds. He reviewed the symptoms of the two affections, showing how pleurisy and rheumatism develop under similar circumstances, and yield to the same treatment. In some cases reported in Germany, by Köster, the effusion subsided under treatment with salicylates in from five to seven days. Dr. Shurly referred to cases of pleurisy and acute rheumatism that he has seen develop under similar climatic conditions.

DR. STOCKTON, of Buffalo, referred to a case in which pleurisy, instead of endocarditis or pericarditis, developed in the course of an attack of rheumatism.

DR. ATKINSON, of Baltimore, stated that post-mortem results do not bear out the conclusions announced by Dr. Shurly. Pleurisy *per se* cannot be accounted for on a rheumatic theory. In cases of acute pericarditis there is often found a pleuro-pericardial friction. Possibly, therefore, in cases of supposed pericarditis the lesion may really be one of pleuritis. Doubtless the

association of the two diseases is, nevertheless, more common than has hitherto been supposed.

DR. SHURLY stated that he did not mean to say that all cases of acute idiopathic pleuritis are of rheumatic origin, but he wished simply to call attention to the analogy between the two affections and to their relatively frequent association.

DR. GEORGE E. FELL, of Buffalo, read a paper entitled "Additional Evidences of the Value of Forced Respiration (Fell Method) in Opium-narcosis." He stated that it was now five years since he first saved a life by systematically respiring for a human being by forced respiration, when the methods in vogue at that time were inadequate to accomplish similar results. Since that time, nineteen human lives have been saved by the method, although it has not been generally utilized by the medical profession. Dr. Fell deprecated the statement that any "unskilled person" could perform forced respiration with success, and related an instance in which intelligent physicians, who were not specially acquainted with his apparatus, were unable to use it without instructions. He also stated that the use of the apparatus could be taught to the crews of life-saving stations or to crews on board ships, so that, after proper instruction, it might be utilized in the saving of many lives that would otherwise be lost by drowning. He also refuted the statement as to the similarity of the method first used by him to that used in the laboratories in operations upon animals, and called attention to the fact that there were nine marked points of difference of practical import between the apparatus devised by him for forced respiration upon man and that used upon dogs in vivisection experimentation.

Dr. Fell reported the twentieth case saved, in which a young woman had been rescued by forced respiration after taking twenty grains of morphine; Case 21, in which an old woman died after having taken an excessive dose of gum opium, although forced respiration was kept up for some thirteen or fourteen hours; Case 22, in which a woman had taken forty-four quarter-grain tablets of morphine dissolved in a glass of water, and whose life was saved after some four hours' work by forced respiration; Case 23, in which three ounces of laudanum had been taken by a prisoner with some sweet spirit of niter, life being saved after four hours' forced respiration and the removal of about eight ounces of blood to relieve the intense cerebral congestion that existed; Case 25, in which a gentleman who had been given up by the surgeons at the Fitch Hospital, Buffalo, and who was in a very precarious condition, was saved by the application of forced respiration for about four hours. These cases thus saved, it was claimed, could not have been saved by any other method than the systematic and regular introduction of air into the lungs by forced respiration.

Dr. Fell expressed a desire that reports of cases of forced respiration be sent to him at Buffalo, N. Y., as he desired to make a full report of results at the next meeting in Milwaukee.

The apparatus consists of a double bellows, which keeps up a steady current of air—three or four movements are sufficient for inspiration, and three for expiration. To the bellows is attached rubber tubing. The air is forced into the lungs through a mask, and escapes by a valve connected with the tube.

The paper of DR. M. M. LEAHY, of Chicago, on "Epilepsy," was read by title. It was contended that, although the cause of epilepsy is yet obscure, not less than two-thirds of all epileptics are incurable. In hospital and general practice, both in Europe and in the United States, some measure of success has been obtained from treatment.

If the exciting cause be compression of the brain, or a lesion of the spinal cord, the chances are largely that the former will be followed by softening of the brain or idiocy, and the latter by paralysis, both terminating fatally.

If the patient be the offspring of intemperate, tuberculous, rickety, or syphilitic parents, he may be relieved; the fits may be stopped for months, possibly for years at a time; but the chances are not in favor of a permanent cure.

When, however, the exciting cause is a simple disturbance of some part of the alimentary canal, or of the secretory apparatus, liver or kidneys—an irritation of the pneumogastric nerve—the chances are decidedly in favor of a permanent cure.

The greatest attention should be paid to the idiosyncrasies of patients, no two persons requiring precisely the same medical and hygienic treatment.

The greatest obstacle in the way of permanent relief to those who are curable is an unwillingness to continue treatment sufficiently long. The fits once stopped, both the patient and his friends regard any effort to induce him to continue treatment as a collusion of physician and druggist to defraud him of his money. The fits return, of course, and the physician is held responsible.

Is it Utopian to hope that, at no distant day, it may be possible to convince the State of the necessity of providing ample hospitals where all epileptics may be carefully and scientifically treated, and where all that are curable may be kept until they are cured?

A paper on "Europhen; with Clinical Reference to Europhen and Europhen-aristol," by Dr. JOHN V. SHOEMAKER, of Philadelphia; and another on "A Few Notes on the Mechanical Therapeutics of Osseous and Medullary Lesions of the Spine," by DR. THOMAS H. MANLEY, of New York, were read by title.

SECTION ON OBSTETRICS AND DISEASES OF WOMEN.

THIRD DAY—JUNE 9TH.

Morning Session.

In the discussion of the papers of Dr. Ashton and Dr. McMurtry, DR. G. BETTON MASSEY stated that he had devised a method of electric illumination for the pelvis, by which the presence of pus could be diagnosticated, pus being less translucent than healthy tissue.

DR. JOHNSON ascribed adhesions and intestinal obstruction to bad operating. The pain from such adhesions is often great, leaving the patient worse after operation than she was before. Perfection in diagnosis would avoid delay.

DR. MARTIN advised omental grafts, covering the raw surfaces of stumps, and early bowel-movement, to avoid adhesions.

DR. RICKETTS stated that he had seen good results from strychnine in preventing intestinal paresis.

DR. E. P. DAVIS regarded a knowledge of the behavior of the peritoneum in the presence of substances

used in abdominal surgery of great importance. Experiments have shown that iodoform is least irritating; and next in order is boric acid. The gauze-drain is better than the glass tube; a case was related in which a glass tube, left in the peritoneal cavity, was forced out by the peritoneum. The peritoneum of animals differs from that of the human subject.

In closing, DR. ASHTON expressed the opinion that adhesions are unavoidable. Raw surfaces should not be left. The omental graft and early bowel-movement could not prevent adhesions. Strychnine, in doses of one-fifteenth of a grain, given three times daily, hypodermatically, for several days before and after operation, is of value. The peritoneum of dogs is easily made septic.

DR. MCMURTRY urged early operation in cases of fibroids in which the tumor is soft, grows rapidly, and hemorrhage is excessive.

DR. ERNEST LAPLACE, of Philadelphia, read a paper on "The Microörganisms of the Diseased Endometrium and Surgical Interference." He stated that experiments performed in Koch's laboratory, in Berlin, showed that microörganisms are present in the normal endometrium, as well as in the cervix uteri. In inflammatory conditions the same organisms were detected, but in much larger quantities, not only in the secretions, but also in the mucous membrane proper and in the submucous fibrous tissue. Normally, the microörganisms present seem to do no particular injury, but under the reactionary congestion incident to cold, they develop rapidly, and induce a pathologic condition. The gonococcus of Neisser was found deep in the mucous layer. This evidence points to the necessity of scraping and thorough disinfection for the relief of such a condition, and a subsequent thorough disinfection and sterilization of the parts with the acid sublimate solution 1 : 2000, and then packing with iodoform-gauze. The identity of some of the microörganisms detected could not be recognized; two of them were found to be pathogenic to guinea-pigs.

In the discussion, DR. MASSEY urged the value of electricity in decomposing a mercurial solution applied to the uterus, thus bringing the antiseptic in immediate contact with the tissues.

DR. VANDER VEER urged the importance of thorough dilatation before curetting. He employs the douche-curette, and afterward hot boric acid solution, packing the uterus with iodoform-gauze. In septic cases, if no improvement follows, he would not delay longer than forty-eight hours opening the abdomen.

DR. MORRIS stated that he employs hydrogen dioxide after curetting.

DR. NELSON stated that he dilates thoroughly, curettes, douches the uterus with a hot antiseptic solution, and finally applies iodine.

DR. GORDON stated that he uses the sharp curette, followed by bichloride, 1 : 2000, dilating repeatedly while curetting; he then applies pure carbolic acid. He puts the uterus in a good position to secure drainage.

DR. ASHTON considered disease of the appendages a contra-indication for dilatation and curetting when gross lesions are present and the uterus is fixed; otherwise diseased appendages do not constitute a contra-indication. The sharp curette is used.

DR. LAPTHORN SMITH emphasized the value of the gauze drain.

DR. E. P. DAVIS stated that he had employed injections of creolin and green soap, 10 per cent., with good results in cleansing the vagina before labor. If vaginitis or endocervicitis has existed, one copious bichloride douche should be invariably given after labor.

DR. S. O. GORDON, of Portland, Me., read a paper entitled "Hysterectomy Without Pedicle." He operates by ligating the broad ligament with catgut, severs the ligated tissue, employs the over-and-over stitch down each side; ligates the uterine arteries, and dissects off the bladder and uterine attachment behind. He lifts out the entire uterus and sutures the peritoneum. He reported twelve cases, with a death from secondary hemorrhage two weeks after operation.

DR. EASTMAN presented a record of sixty-five operations performed by his method. He employs his staff to raise the uterus, leaves his silk ligatures long, pulls them down and sews the serous surfaces together. He thinks it exceedingly difficult to cleanse the vagina; he cauterizes the cervix or packs it with gauze. While the Trendelenburg position is useful in some cases, he has noted the following disadvantages: pus and retained secretions in a fibroid uterus may run into the abdomen; in a recent case dropsy of the retinæ followed. In large tumors he applies the elastic ligature, and removes the bulk of the tumor first; then he extirpates the cervix. When skilfully performed, the mortality of total extirpation of the fibroid uterus should not be greater than that of ovariotomy.

DR. VAN DE WARKER would limit total extirpation to selected cases. Many need no operation. Rapidity in operating is essential. Puckering the broad ligament should be avoided, as ligatures are likely to slip. The broad ligaments constitute the only source of serious hemorrhage; if they are secured, the cervix needs no ligature.

DR. MARTIN urged the selection of a method to fit the needs of the case. Total extirpation removes the cervix, which is the center of support for the vagina; hence vaginal fixation of the cervix is best.

DR. NELSON expressed the view that fibroids are sometimes cured by ergot, pregnancy, the menopause, electricity, and oöphorectomy. Hysterectomy requires rapidity of operation; the broad ligament should be ligated in small portions.

DR. JOHNSON stated that he would remove only the diseased portion of the fibroid uterus, leaving the cervix.

DR. BAER stated that he considers fibroids incurable except by operation; patients suffer constantly from them. Operation should be performed in all well-defined cases, if the patient intelligently consents. Total extirpation is to be avoided if possible. The broad ligament should be ligated, and the pedicle dropped. The stump may be left without covering. The cervix should be left, if possible. The stump should not be constricted if dropped.

Afternoon Session.

DR. GEORGE M. EDEBOHLS, of New York, read a paper "On Combined Gynecological Operations." He stated that the tendency of modern gynecology is to progress in a surgical direction. The uncertainties and

unreliability of other methods of treatment, as compared with the results obtained by surgical measures, are proverbial. With the rapid strides forward of surgical gynecology, this contrast is daily becoming more accentuated. Increased confidence in results growing from increased experience and progressive skill will incline the individual operator more and more to trust to surgical resources. Many cases require more than one gynecologic operation to effect a cure. All gynecologic operations required in a given case should at the present day, as a rule, almost without exception, be performed at the same sitting. The patient has a right to expect this from the expert claiming to possess the highest degree of operative skill. That this will be the standard of the near future there seems no doubt.

Success in combined gynecologic operations presupposes first of all perfect asepsis and a not too prolonged anesthesia. The duration of the latter need but very rarely exceed one and a half hours, even in the most difficult cases. Other things necessary are the requisite degree of operative skill and dexterity, sufficient and efficient assistance, a perfect technique in the various operations attempted, and an instrumentarium suitable for rapid work.

Combined gynecologic operations may be divided into two general classes:

1. Combinations into which laparotomy does not enter.
2. Combinations of which laparotomy forms a part.

The expert operator should be able to perform any required combination of operations of the first class within the time limits of safe anesthesia. The same statement holds good of the combinations of operations of the second class into which a *simple* laparotomy enters. When a *difficult* laparotomy forms part of the combination, the patient's interests may occasionally be better served by operating at two sittings.

To cite an example from practice, Dr. Edebohls has a number of times, in cases of complete procidentia uteri performed curettement, amputation of the cervix, anterior colporrhapy, colpo-perineorrhaphy, and ventrofixation of the uterus at one sitting, doing the five operations within seventy-five minutes.

As a result of his experience and success with plastic work he considers total extirpation of the uterus for prolapsus justifiable only under very exceptional conditions.

There is no excuse for a mortality in combined operations of the first class. The mortality of combinations into which laparotomy enters will depend upon that of the intra-abdominal operative interference required.

The paper concluded with a frank recital of failures in combined gynecologic operations.

DR. JOSEPH TABER JOHNSON, of Washington, D. C., read a report of "Five Cases of Ovarian Tumors with Twisted Pedicle; with Remarks." In each case gangrene and septic infection developed, as they did likewise in one case of uterine fibroids with a twisted pedicle. All were incorrectly diagnosticated; all recovered after operation. In one case the movement of a child on the lap of the patient caused the rotation of the tumor.

In the discussion of Dr. Edebohl's paper, DR. CURRIER stated that combined operations are not possible for all operators, and with patients who bear ether badly. In many cases delay is preferable.

DR. MARCY stated that he operates rapidly, and uses animal suture (kangaroo tendon). Recently he removed some silk ligatures that had given rise to the formation of vesical calculi.

DR. EASTMAN stated that if the stumps of the broad ligament are brought down after total extirpation of the prolapsed uterus, prolapse of the vagina will not occur.

DR. NELSON expressed the opinion that abdominal pain arising after sudden exertion in a patient having an ovarian tumor, followed by peritonitis, is a sign of twisted pedicle; an operation should be done at once.

FOURTH DAY—JUNE 10TH.

Morning Session.

DR. A. VANDER VEER, of Albany, N. Y., presented a paper "On the Management of Cancer of the Uterus, Complicated by Pregnancy, with Report of a Case."

He stated that pregnancy and uterine carcinoma are conditions, fortunately, rarely associated. Winckel, Stratz, and Sutgin, in nearly forty-two thousand cases of pregnancies, in three great obstetric clinics, saw but twenty-two cases complicated by carcinoma of the uterus.

Consulting obstetricians see relatively more cases than do general practitioners, and apparently see as diverse results of treatment. The late Dr. Fordyce Barker reported three cases in which living children were delivered at term, the mothers recovering from childbed without serious drawbacks. Other obstetricians of equal skill have seen this complication followed time after time by death of the mother. Puchett saw five of twenty-seven cases die undelivered during labor; nine, shortly after delivery; ten recovered from labor, and in three the results are not stated. Omitting the three cases in which the results are not given, we have a maternal mortality of 58 per cent. plus.

Cohnstein found a maternal mortality of 57 per cent.; Hermann, in one hundred and eighty cases, found a maternal mortality of 40 per cent., 20 per cent. of these dying before delivery took place. To consider the subject more accurately, of nearly three hundred women suffering from this complication, and in labor at end of gestation, 52 per cent. died undelivered or never left their beds. The maternal mortality is not materially lessened by abortion and premature delivery. Sepsis after delivery of the fetus, from absorption of unhealthy and non-cicatrizing granulations, or from retained placenta, is responsible for a large proportion of the deaths; postpartum hemorrhage and rupture of the uterus are responsible for still another proportion. Few that survive the ordeal of delivery live three months.

Are the conditions less favorable for the children? Only 33 per cent. of the foregoing series were born living, and hardly 20 per cent. lived until the mother left childbed.

There is scarcely a condition of disease that presents a darker or sadder image than does this one. The subject, it is to be feared, has not received the attention in text-books and from teachers of obstetrics that its moment deserves. It is necessary to outline the course pursued by carcinoma of the uterus when complicated by pregnancy, in order to form a clear conception of our duty to these cases in the future. The statistics presented show that we cannot afford to wait for emergen-

cies, abortion, septic infection to arise, if we expect to reduce the fearful mortality.

If obstetricians and gynecologists were called upon to state their individual preference for treatment of these cases in two words, it is probable that the larger number would select vaginal hysterectomy, rather than high amputation, total extirpation, or partial excision. Unless exceptional circumstances are present, total extirpation, in operable cases, should be the rule; the operation to be performed at the earliest moment.

So far as treatment goes, carcinoma of the cervix uteri, associated with pregnancy, may be classified in three groups: First, cases in which the disease is confined to the uterine tissue, without infiltration of the vagina, bladder, rectum, or broad ligaments, and the uterus has not reached a size incompatible with vaginal hysterectomy, say up to end of the fourth month of pregnancy; second, cases presenting the features of the first class, except that removal of the uterus by vaginal hysterectomy is precluded, because of the late period of gestation, after the beginning of the fifth month; third, cases at any period of gestation when total extirpation is impracticable.

In the management of the first class, abortion, either accidental or induced, has been shown to be surrounded by many dangers, although it has been successfully employed by a few operators, as a preliminary to vaginal hysterectomy.

In the majority of these cases, high amputation of the cervix brings about abortion, and is even less successful as to final cure than when practised upon the non-puerperal uterus.

Dr. Vander Veer reported the case of a housewife, twenty-seven years old; good family history. She had menstruated at thirteen; had married at fifteen; had three children, aged respectively ten, seven, and five years, with one miscarriage between the second and third children. For a year menstruation had been more profuse and more frequent than previously. The family physician diagnosticated carcinoma of the cervix, an opinion that was concurred in after careful examination. There was also a possibility of the existence of pregnancy. The latter condition was by the patient thought impossible, as none of the usual symptoms of pregnancy had been present. A cauliflower-like excrescence was found protruding very uniformly from the anterior two-thirds of cervix. The growth was not particularly sensitive to the touch, but had a hard, indurated base. The body of the uterus was enlarged to the size of a small orange; the pelvis was apparently healthy; there was no infiltration of the vaginal walls.

Vaginal hysterectomy was performed September 30, 1890. The uterus was found somewhat larger than it was mapped out to be in the previous bimanual examination. The specimen, after removal, showed the cervix to have been completely involved in the growth, the body of the uterus containing a fetus of about two and a half months' development. Microscopic examination of the specimen disclosed a cellular infiltration resembling closely that of scirrhus of the breast. The patient returned to an excellent state of health.

The points of interest in the case are as follows:

There had been irregular menstruation for over a year—hemorrhage, as it were—yet when the disease must have been pretty well advanced, the woman became pregnant. Would this fetus have gone on to full time; could it have been delivered by abdominal section; and what would have been the mother's chances for recovery? The same line of treatment would be applicable to other patients similarly situated, Including this one, there have been sixteen cases of vaginal hysterectomy for carcinoma of the uterus complicated by pregnancy that had advanced not quite to the end of the fourth month, in which the mortality was *nil*.

Briefly the treatment of carcinoma of the uterus may be summarized as follows: In all operable cases, if the pregnancy is not advanced beyond the fourth month, vaginal hysterectomy should be performed at once; in all operable cases between the fourth month and term, as a rule, complete extirpation of the uterus by Freund's method, as modified by Zweifel, should be practised; and in inoperable cases, delivery at term, or supra-vaginal hysterectomy of the pregnant uterus—Porro's operation—should be attempted.

DR. E. P. DAVIS expressed the opinion that in case of Cæsarean section performed for carcinoma, the prognosis for the fetus at from the twenty-sixth to the twenty-eighth week can be rendered favorable by the use of incubation and gavage. If the fetus is at term, the simple Cæsarean section gives better results than the Porro operation. Sepsis may be avoided by packing the cervix and vagina with iodoform-gauze.

DR. ROBERT T. MORRIS, of New York, presented "A Report of Experiments Germane to the Subject of Abdominal Supporters after Laparotomy," recording observations made at various dates after the performance of laparotomy on rabbits, and concludes that the separate structures in an abdominal wound must be sutured separately in order to obtain a well-repaired wound. He found that at the expiration of seven days the peritoneum was so well united as to be as strong as normal peritoneum. The muscular and fibrous structures were practically of normal strength at the expiration of fourteen days, and the skin required four days more for completely firm union.

It is unnecessary to apply abdominal supporters for the purpose of preventing hernia after a patient is up and about, if the surgeon has united the separate structures properly. Dr. Morris stated that he had never had hernia appear after laparotomy in any of his patients, and they did not wear abdominal supporters after they were out of bed, excepting in occasional cases for purposes of comfort. He uses nothing but catgut for sutures and ligatures.

DR. CURRIER stated that he sutures the fascia separately in closing the abdominal wound. He cuts through the rectus muscle, and not through the linea alba. He uses a broad strip of rubber plaster instead of a supporter.

DR. MCKELWAY stated that he found supporters useful in cases in which union was not perfect.

DR. EDWARD W. JENKS, of Detroit, read a paper on "Colpo-perineorrhaphy." In operating he dissects a flap of vaginal tissue up as far as redundancy is observed on the posterior vaginal wall, using sharp-pointed, double-edged scissors. The stitches are introduced one-third of an inch apart; the flap rarely needs trimming; the last stitch purses the flap and completes closure. Dr. Jenks uses silver wire or silkworm-gut, and flat, non-

cutting needles. The flap is lifted, and the needles are brought out in the middle and re-inserted. For hemorrhage silk sutures are passed over the flap. No dressing is required, and few bichloride douches. The external parts are kept clean by means of bichloride solutions.

DR. POTTER stated that he prefers catgut and silkworm-gut.

DR. DOW objects to a purse-string suture, as rectocele is likely to result. He presses back the recto-vaginal septum and does not bury the sutures. He uses a plate and shot in front, and completes the approximation by a superficial catgut stitch.

DR. NEWMAN stated that he had found Tait's operation insufficient in many cases; but more satisfactory in complete laceration.

DR. W. H. MYERS, of Fort Wayne, Ind., read a paper entitled "A Few Considerations on Ovariotomy where Pregnancy is Present: with a Case." The case was that of a primigravida seized with abdominal pain, which obstinately resisted Christian science treatment. Examination revealed the existence of pregnancy complicated by the presence of an ovarian cyst. An operation was successfully performed, the cyst proving to be multilocular. Labor ensued a few days later, and was followed by brief fever. The patient made a good recovery.

DR. POTTER stated that he had performed double ovariotomy in the fourth month of pregnancy; the patient went to term and was delivered spontaneously.

DR. MURPHY related that he had operated successfully on a patient three months pregnant.

DR. E. P. DAVIS expressed the opinion that the drainage practised by Dr. Myers had been unnecessary, and that it is probable that the presence of the tube excited labor and the fever.

DR. MORRIS reported several successful cases of the same kind.

DR. DOW exhibited a double tenaculum for operating on the cervix.

DR. I. S. STONE, of Washington, D. C., presented a paper entitled "My Operative Experience in 'Pus Cases,'" giving the results of observations in a series of twenty-five cases occurring in his service at the Columbia Hospital for Women. Of these, three had died. One died of nephritis (following gonorrhea) that had begun a number of days before the section, and carried off the patient five days afterward. There was no peritonitis, the patient dying of uremia less than five weeks after the first evidence of vaginitis. The second case died of shock, twenty-four hours after section, from inadequate measures for its prevention. The third had serious bowel-injury, without rupture however, but which may have infected the peritoneum. There was some peritonitis, but no fluid in the cavity. The patient died in three days of exhaustion, with distention and obstruction of the bowels. About two-thirds of the cases followed abortion or delivery at term. Septicemia developing four, five, and in some cases even eight months after delivery had given rise to the most serious complications. Intestinal adhesions of longest standing involve great risk to the bowel in their separation. Gonorrhea had caused six large collections of pus, in some cases aggregating more than a pint. These abscesses, it was thought, were of many months' standing, and consent for operation was only given when the patient was *in extremis*.

On motion, a vote of thanks was tendered to the Chairman of the Section, Dr. E. E. Montgomery, for his efficient conduct of the meetings.

The following is the list of officers for the ensuing year:

Chairman.—Dr. John Milton Duff, of Pittsburg, Pa.

Secretary.—Dr. M. B. Ward, of Topeka, Kan.

Executive Committee.—Dr. E. E. Montgomery, of Philadelphia, three years; Dr. Joseph Taber Johnson, of Washington, D. C., two years; Dr. Joseph H. Eastman, of Indianapolis, Ind., one year.

NEWS ITEMS.

The Clinical College of Medicine and Specialty Hospital, of Chicago, has been organized to "supply to students the instruction and facilities for clinical work now obtained only by hospital internes and attendance at post-graduate schools." A suitable lot has been secured, and work upon the buildings is to be begun immediately. The course of study will cover thirty-six months of actual attendance at the College, Dispensary, and Hospital, divided into twelve terms of three months each. The classes attending each term will be limited to six students, and their entire time in the college and hospital will be occupied by practical work and personal instruction in the laboratories, in the clinical rooms of the dispensary, and in the hospital. No didactic lectures will be given. Advanced students will be required to assist in operations and nurse patients in the hospital, so as to thoroughly familiarize themselves with the after-treatment in surgical cases and the various phases of disease to be seen in the medical wards.

The requirements for admission to this college will be of the highest grade. The student must either have received a literary or scientific degree, or pass a thorough examination. Candidates for graduation will be required to present a thesis on original work in some department of medicine or surgery. During the last two terms of the college course every facility will be offered to students in the different laboratories for original research.

Instruction will be given in the following branches (each department to be conducted by a professor, aided by a corps of assistants): Eye and ear; nose and throat; dental and oral surgery; orthopedic surgery; surgical injuries, including fractures; surgery of the head, neck, and thorax; abdominal surgery; rectal surgery; genito-urinary surgery; surgery of the joints, including dislocations; gynecology; physical diagnosis, diseases of the chest and clinical medicine; nervous and mental diseases; diseases of children; dermatology; obstetrics.

The following departments will be taught by demonstrators who will give personal attention to classes of six in their laboratory, practical work, and recitations: Anatomy; physiology; chemistry and toxicology; materia medica and pharmacology; microscopy and histology; pathological histology; general pathology; surgical pathology; pathological anatomy; visceral anatomy; bacteriology; surgical appliances; surgical dressings and asepsis; hygiene and State medicine; medical jurisprudence; therapeutics; massage and

dynamo-therapy; electro-therapy and hydro-therapy; urinalysis; calisthenics.

The Directors are now receiving applications from candidates for professorships and demonstratorships. Further information can be obtained by addressing the Secretary of the Board of Directors, S. A. McWilliams, M.D., 3456 Michigan Avenue, Chicago, Ill., or the President, J. E. Harper, M.D., 1101 Masonic Temple, Chicago, Ill.

The American Climatological Association will hold its ninth annual meeting at Richfield Springs, N. Y., June 23, 24, and 25, 1892. The following papers have been secured:

Address of Welcome, Dr. C. E. Ransome, of Richfield Springs.

Address of the President: "The Element of Change *per se* in the Climatic Treatment of Diseases," by Dr. Willis E. Ford, of Utica.

"The Shurly-Gibbes Treatment of Tuberculosis," by Dr. E. Fletcher Ingals, of Chicago.

"Slow Breathing in Phthisis," by Dr. Carl Ruedi, of Denver.

"Treatment of Phthisis by the Pneumatic Cabinet," by Dr. C. E. Quimby, of New York.

"A Further Report on the Treatment of Phthisis in Colorado," by Dr. S. E. Solly, of Colorado Springs.

"Results of Tuberculin and its Modifications at the Adirondack Cottage Sanitarium," by Dr. E. L. Trudeau, of Saranac Lake.

"Experience with Guaiacol in Treatment of Tuberculosis," by Dr. A. Jacobi, of New York.

"The Use of Tuberculin; a Safe and Important Aid in Selected Cases," by Dr. Charles Denison, of Denver.

"The Hygiene of Bathing," by Dr. F. H. Bosworth, of New York.

"The Classification of Mineral Waters," by Dr. A. N. Bell, of Brooklyn.

"Heart Failure," by Dr. A. L. Loomis, of New York.

"Altitude in Affections of the Heart," by Dr. Frederick I. Knight, of Boston.

"Cardiac Disease Consequent on Epidemic Influenza," by Dr. R. G. Curtin, of Philadelphia.

"Effect of Change of Posture on Heart Murmurs," by Dr. V. Y. Bowditch, of Boston.

Discussion: "The Influence of Bacteriological Investigation on Preventive Medicine."

"Underground Water Currents; Causes and Results of Deflection," by Dr. Leroy J. Brooks, of Norwich, N. Y.

"The Causes of Death in Lobar Pneumonia," by Dr. G. R. Butler, of Brooklyn.

"The Methods of Cooling Water in Hot Climates," by Dr. T. J. Darlington, late of Bisbee, Arizona.

Papers are expected from Drs. James R. Leaming, Beverly Robinson, Clarence C. Rice, John M. Keating, James H. Wroth, and others.

The American Laryngological Association will hold its fourteenth Annual Congress at Boston, June 20, 21, and 22, 1892. The following program has been arranged:

First Day—June 20th.

President's Address, by Dr. S. W. Langmaid.

Papers: "The Present Status of the Treatment of Hay-fever," by Dr. C. E. Sajous. "The Influence of Certain Diathetic Conditions upon the Prognosis in Operations upon the Throat," by Dr. D. Bryson Delavan. "Some Pathological Conditions of the Upper Air-passages Accompanying 'La Grippe' Attacks," by Dr. S. Hartwell Chapman. "Pharyngo-mycosis," by Dr. F. I. Knight. "A Case of Carcinoma at the Base of the Tongue," by Dr. Jonathan Wright. "A Case of Cancer of the Tonsil Treated by Lactic Acid," by Dr. E. Fletcher Ingals. "Report of Some Cases of Membranous Sore-throat," by Dr. Beverley Robinson.

Second Day—June 21st.

"Intubation for Chronic Subchordal Stenosis of the Larynx in a Boy Twelve Years of Age," by Dr. Charles H. Knight. "Rare Forms of Laryngeal Growth," by Dr. Alexander W. MacCoy. "A Case of Tumor of the Larynx," by Dr. H. L. Swain. "Two Cases of Laryngectomy for Malignant Disease," by Dr. J. Solis-Cohen. "The Value of Sprays in the Treatment of Catarrhal Affections of the Upper Air-passages," by Dr. Clarence C. Rice.

Third Day—June 22d.

"Nasal Hydrorrhea," by Dr. C. E. Bean. "An Eligible Method of Repairing a Broken Nose," by Dr. W. H. Daly. "The Correction of Deformity Resulting from Abscess of the Nasal Septum," by Dr. John O. Roe. "The After-results of Nasal Cauterization," by Dr. T. A. DeBlois. "Diseases Incident to the Frontal Sinus," by Dr. D. N. Rankin. "A Case of Suppurating Ethmoiditis," by Dr. J. H. Bryan.

National Association of Railway Surgeons.—Dr. N. Senn, Chairman of the Special Committee on Program for the sixth annual meeting of the National Association of Railway Surgeons, reports the following as one of the topics for consideration: "Injury to the Spinal Cord and its Envelopes Without Fracture of the Spine. 1. History. 2. Experimental Research. 3. Anatomical Landmarks. 4. Spinal Localization. 5. Diagnosis from the Standpoint of the Neurologist. 6. Pathology and Pathological Anatomy. 7. Prognosis. 8. Treatment. 9. Medico-legal Aspects. 10. Statistics of the Amount of Money Paid by the Railroads of the United States during the last Ten Years for Alleged Injuries of the Spine."

Each of these sub-heads is to be considered in a thirty-minute paper, after which the subject will be open to discussion by the entire Association.

Dr. Henry F. Formad, Demonstrator of Pathology and Lecturer on Morbid Anatomy at the University of Pennsylvania, and Pathologist to the Philadelphia Hospital, died June 5, 1892, after a brief illness, at the age of forty-five years. The funeral took place on June 9th.

CORRECTION.

In the tenth and eleventh lines of the second column on page 673 of THE MEDICAL NEWS of June 11, 1892, Dr. Charles Denison is quoted as saying that "in a letter received, Dr. Edes expressed his great faith in the remedy." The name of Dr. Edes was, by mistake, used for that of Professor Koch, of Berlin.

At the top of the second column of page 504 of THE MEDICAL NEWS of April 30, 1892, it is stated that "the price of diuretin (Knoll) is $2.50 per ounce, av." We are informed that since January the price of diuretin (Knoll) has been $1.75 per ounce.